Quarterly Monitoring Report Second Quarter 2015

AS/SVE System
Former Fuel Depot Area – Site 7
Naval Weapons Industrial Reserve Plant
Calverton, New York

Contract No. N40085-10-D-9409 Contract Task Order No. 0003

January 2016

Prepared for:



Naval Facilities Engineering Command Mid-Atlantic 9324 Virginia Avenue Norfolk, VA 23511

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Acronyms and Abbreviations

AS air sparge

BTEX benzene, toluene, ethylbenzene, and xylenes

COC constituent of concern

DO dissolved oxygen

DOD Department of Defense

ELAP Environmental Laboratory Accreditation Program

FB field blank

H&S Environmental, Inc.

MS/MSD matrix spike/matrix spike duplicate

NAVFAC Naval Facilities Engineering Command Mid-Atlantic

NELAC National Environmental Accreditation Conference

NWIRP Naval Weapons Industrial Reserve Plant

O&M Operations and Maintenance ORP oxidation reduction potential

PCG Proposed Closeout Goal

QA/QC quality assurance / quality control

ROD Record of Decision

RPD relative percent difference

SC specific conductance SVE soil vapor extraction

SVOC semi-volatile organic compound

TB trip blank

TtEC Tetra Tech EC, Inc.

USEPA United States Environmental Protection Agency

UST underground storage tank
VFD variable frequency drive
VOC volatile organic compound

1.0 INTRODUCTION

H&S Environmental, Inc. (H&S) has prepared this Quarterly Monitoring Report for the former Fuel Depot Area (Site 7) Air Sparge / Soil Vapor Extraction (AS/SVE) System at the Naval Weapons Industrial Reserve Plant (NWIRP) in Calverton, New York (NWIRP Calverton). This report has been prepared for the U.S. Department of the Navy (Navy), Naval Facilities Engineering Command (NAVFAC), Mid-Atlantic, under Contract No. N40085-10-D-9409, Contract Task Order No. 0003. This Second Quarter 2015 Monitoring Report details activities that occurred from April to June 2015. Data was collected and operational activities were performed by H&S in accordance with the following documents:

- Final Operations and Maintenance Manual for Soil Vapor Extraction / Air Sparging System prepared by Tetra Tech EC, Inc. (TtEC) in 2006, hereafter referred to as the "O&M Manual."
- Performance and Shutdown Evaluation of the Air Sparge/Soil Vapor Extraction System, Site 7 –
 Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by
 Tetra Tech, Inc. (Tetra Tech) in 2013.

1.1 Background

Site 7 is located approximately 3,000 feet north of the south gate, near the geographic center of the former NWIRP Calverton, now the Calverton Enterprise Park (**Figure 1**). The principal features of the Site are a large concrete pad that was used for truck unloading and parking along the southern half of the Site and a gravel/soil area where a series of underground storage tanks (USTs) were located along the northern half of the Site. Prior to their removal in 1998, the USTs were used to store jet fuel. A pump house was located along the western edge of the Site. The pump house was used to load trucks that transferred the jet fuel to other areas in the former NWIRP Calverton. The Site layout is depicted in **Figure 2**.

The 2003 Record of Decision (ROD) for Site 7 indicated a selected remedy of installation and operation of an AS/SVE system. The AS/SVE system was constructed in 2006 and included a series of air sparge and vacuum extraction wells connected by aboveground piping that is connected to a treatment system located in a building in the southeast corner of the Site. The purpose of the AS/SVE system was to remediate residual concentrations of constituents of concern (COCs) in groundwater (TtEC 2007). The AS/SVE system was operated seasonally through 2013, from April to December each year (since the system utilizes aboveground piping that is not designed for below freezing operations).

In November 2013, Tetra Tech submitted an evaluation of the Site 7 AS/SVE system entitled, *Performance and Shutdown Evaluation of the Air Sparge / Soil Vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York.* This document proposed an interim shutdown of the AS/SVE system in December 2013 to evaluate the overall effectiveness of the remedy. During the shutdown, soil and groundwater data would be collected to determine whether additional treatment at the Site is warranted. The system would remain off while data was collected and evaluated, and a final decision to permanently shut down the system would be made after data evaluation. In accordance with this plan, the system was shut down on 5 November 2013 (shut down occurred a month earlier than planned due to issues with the variable frequency drive (VFD) for Blower 1). The

purpose of this report is to present and evaluate data collected during the Second Quarter 2015, post shutdown, in accordance with the *Performance and Shutdown Evaluation* (Tetra Tech 2013).



2.0 AS/SVE SYSTEM OPERATION AND MAINTENANCE

The AS/SVE system was shut down on 5 November 2013 and remained off-line during the Second Quarter 2015. The AS/SVE system was subsequently decommissioned by others in the latter half of 2015, as detailed under separate cover.

3.0 MONITORING

3.1 Groundwater Quality Monitoring

A quarterly groundwater monitoring event was performed on 24 June 2015. Groundwater samples were collected from the following seven monitoring and SVE wells: MW16S, MW17S, SV2, SV4, SV11/MW40, SV13, and SV15. These wells were chosen based on historical groundwater contaminant concentrations above the 2003 ROD remediation goals or 2013 Proposed Closeout Goals (PCGs) at these locations (Tetra Tech 2013). Monitoring and SVE well locations of are depicted on **Figure 2**.

3.1.1 Groundwater Elevation Data / Groundwater Flow

Groundwater level measurements were collected from the 15 SVE wells and 12 monitoring wells on 24 June 2015, prior to performing groundwater sampling activities. Groundwater elevations were calculated for those wells for which reference elevation data was available. Groundwater level measurements and associated elevation data are presented on **Table 1**. Groundwater elevations are also presented graphically on **Figure 3** and used to determine the direction of groundwater flow. As indicated on **Figure 3**, the general direction of groundwater flow is from west to east across the Site.

3.1.2 Groundwater Quality Results

Field parameters measured during well purging, consisting of pH, specific conductance (SC), turbidity, temperature, oxidation-reduction potential (ORP) and dissolved oxygen (DO), are summarized in **Table 2**. Copies of the field logs and chain of custody documentation are presented in **Appendix A**.

Groundwater samples were submitted to a National Environmental Laboratory Accreditation Conference (NELAC) accredited, Department of Defense (DOD) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory: Analytical Laboratories Services, Inc. located in Rochester, NY. Groundwater samples were analyzed for select volatile organic compounds (VOCs): benzene, toluene, ethylbenzene, xylenes (collectively BTEX), naphthalene, and 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113®) by U.S. Environmental Protection Agency (USEPA) Method 8260C. In addition, groundwater samples were also analyzed for one semi-volatile organic compound (SVOC), 2-methylnaphthalene, by USEPA Method 8270D, and total lead by USEPA Method 6010C.

Validated analytical results for compounds detected during the June 2015 monitoring event are presented in **Table 3.** Results were compared to the 2013 PCGs and concentrations of COCs are summarized as follows:

- Benzene was not detected at any monitoring location.
- Ethylbenzene was detected above the 2013 PCG (5 μ g/L) at five locations: MW16S (14 μ g/L), MW17S (9.5 μ g/L), SV2 (210 μ g/L), SV4 (8.7 μ g/L), and SV13 (7.9 μ g/L).
- Toluene was not detected above the 2013 PCG (5 μg/L) at any monitoring location.
- Total xylenes were detected above the 2013 PCG (5 μg/L) at five locations: MW16S (36 μg/L), MW17S (30 μg/L), SV2 (1282 μg/L), SV4 (43 μg/L), and SV13 (18 μg/L).



- Freon[®] 113 was detected above the 2013 PCG (5 μ g/L) at one location: SV11 (11 μ g/L).
- Naphthalene was not detected above the 2013 PCG (50 μg/L) at any location.
- 2-Methyl-naphthalene was detected above the 2013 PCG (50 μ g/L) at one location: SV2 (56 μ g/L).
- Lead was not detected above the 2013 PCG (15 μg/L) at any location.

Groundwater analytical results for the June 2015 sampling event are presented graphically as **Figure 4**. Also included on this figure are the quarterly analytical results from the December 2013 through March 2015 sampling events for comparison. Data validation reports and a validated analytical data summary are presented in **Appendix B**.

3.1.3 Quality Assurance/Quality Control Sampling

Field and laboratory Quality Assurance/ Quality Control (QA/QC) samples were collected during this sampling event as required by the O&M Manual. These samples consisted of blind field duplicates (collected from SV2), matrix spike/matrix spike duplicate (MS/MSD), and field blanks (FB) collected at a rate of one per sampling event, and trip blanks (TB) submitted at a rate of one per sample cooler. No contaminants were detected in the equipment or trip blank samples collected during this sampling event, indicating that quality control requirements were achieved.

For field duplicate samples, the precision between the original sample and its duplicate is evaluated by calculating the relative percent difference (RPD). RPDs for the June 2015 sampling event are presented in the data validation report in **Appendix B**. As indicated, RPDs for all analytes were below the guideline of 30%. The overall consistency between the samples and its duplicate verifies that proper sample collection methods were followed.

3.1.4 Groundwater Concentration Trends

Table 4 presents the groundwater analytical results for the seven selected monitoring and SVE wells from December 2013 (first sampling event after system shut-down) through June 2015, along with a comparison of these results to the 2013 PCGs. **Tables 5A and 5B** provide the analytical results since 2006 for all monitoring and SVE wells. **Table 5A** summarizes the data for the 12 monitoring wells and **Table 5B** summarizes the data for the 15 previously active SVE wells.

Appendix C presents concentration trends of the eight COCs (BTEX, Freon® 113, Naphthalene, 2-Methyl-naphthalene, and lead) analyzed for at each of the seven selected SVE and monitoring wells, from the first sampling event after system shut-down (December 2013), through the most recent round of quarterly groundwater sampling (June 2015). Concentration trends of total BTEX (combined) and naphthalene from March 2006 through June 2015 for each of the seven selected SVE and monitoring wells (as well as Freon® 113 for SV11) are presented in **Appendix D**.



Overall trends from 2006 to the present are provided for reference in **Appendix D**. However, for purposes of this evaluation, only data from the seven specified wells from December 2013 onward are considered (**Appendix C**).

MW16S

Concentrations in MW16S have generally decreased between December 2013 and June 2015, with variation over time. The concentrations of ethylbenzene (14 μ g/L) and total xylenes (36 μ g/L) observed in June 2015 are above the respective PCGs, but below the initial concentration of 16.9 μ g/L and 64.1 μ g/L, respectively, observed in December 2013. Freon 113® was detected at a concentration of 1.1 J μ g/L in September 2014, having not been detected previously at this location, and was detected at a concentration of 5.2 μ g/L, above the PCG, in December 2014. Freon 113® fell to non-detectable levels in June 2015. Other analyte concentrations have also decreased, with naphthalene concentrations remaining well below the PCG, and total lead concentrations falling to non-detectable levels from a previous concentration above the PCG in December 2013 of 41 μ g/L.

MW17S

Concentrations in MW17S have generally increased between December 2013 and June 2015. Concentrations of ethylbenzene (9.5 μ g/L) and total xylenes (30 μ g/L) observed in June 2015 are above the respective PCGs and above initial concentrations observed in December 2013 (7.1 μ g/L and 10.3 μ g/L, respectively). Concentrations of naphthalene and 2-methyl-naphthalene have varied, though remain below their respective PCGs, and total lead concentration decreased to levels below the respective PCG, from a previous concentration above the PCG in December 2013 of 18 μ g/L. Freon 113® has been detected at levels below the respective PCG during the last two sampling events, at concentrations of 0.38 J μ g/L in March 2015 and 0.83 J μ g/L in June 2015.

SV2

Concentrations in SV2 have generally increased between December 2013 and June 2015. Concentrations of ethylbenzene (210 $\mu g/L$) and total xylenes (1282 $\mu g/L$) observed in June 2015 are above the respective PCGs, and greater than initial concentrations observed in December 2013 (98.9 $\mu g/L$ and 645 J $\mu g/L$, respectively). Total xylenes concentrations did decrease in March 2014 (275 $\mu g/L$) but have since increased to concentrations greater than those observed in December 2013. Naphthalene concentrations have increased slightly from 28.2 J $\mu g/L$ in December 2013 to 36 $\mu g/L$ in June 2015, but remain below the respective PCG. 2-methyl-naphthalene concentrations have increased from 20.2 $\mu g/L$ in December 2013 to 56 $\mu g/L$ in June 2015, above the respective PCG. Total lead concentration decreased to non-detectable levels, from a previous concentration above the PCG in December 2013 of 26 $\mu g/L$.

SV4

Concentrations in SV4 have generally increased between December 2013 and June 2015. Total xylenes concentrations decreased in March 2014 (2.5 μ g/L) and June 2014 (1.6 J μ g/L) but have since increased to concentrations greater than those observed in December 2013 (5.0 μ g/L), to a concentration of 43 μ g/L in June 2015, above the PCG. Ethylbenzene concentrations have also increased since December 2013, to a concentration of 8.7 μ g/L in June 2015, above the PCG. Concentrations of other analytes have increased or remained relatively stable, and all other analyte concentrations remain below the respective



PCGs. Freon 113® has been detected at levels below the respective PCG during the past five sampling events, at concentrations ranging from 0.41 J µg/L in December 2014 and 2.6 J µg/L in September 2014.

SV11

Concentrations in SV11 have decreased between December 2013 and June 2015. The concentrations of Freon $113^{\$}$ (11 µg/L) observed in June 2015 is above the respective PCG, but an order of magnitude less than concentrations observed in December 2013 (137 µg/L). Other analyte concentrations have also decreased, with total xylenes remaining below the PCG, and 2-methyl-naphthalene and total lead concentrations remaining at non-detectable levels in June 2015.

SV13

Concentrations in SV13 have generally increased between December 2013 and June 2015. Concentrations of ethylbenzene (7.9 $\mu g/L$) and total xylenes (18 $\mu g/L$) observed in June 2015 are above the respective PCGs and initial concentrations observed in December 2013 (0.40 J $\mu g/L$ and 2.7 J $\mu g/L$, respectively). Concentrations of 2-methyl-naphthalene have increased and then decreased, remaining below the PCG, and total lead has not been detected during any sampling event.

SV15

Concentrations in SV15 have generally decreased between December 2013 and June 2015. In addition, concentrations of all analytes have been below their respective PCGs from December 2013 through June 2015, with the exception of one lead exceedance in March 2015 when a concentration of 15.4 μ g/L, was observed. The concentration of lead fell to non-detectable levels in June 2015, and no other analytes were detected in June 2015.



4.0 CONCLUSIONS AND RECOMMENDATIONS

Quarterly groundwater monitoring should continue to be performed throughout the 2015 calendar year. In addition to the seven wells currently monitored, additional sentry wells should be added to the monitoring program to confirm that contaminant migration is not occurring. A reduction in groundwater sampling frequency may be considered after the 2015 calendar year.

Monitoring data should continue to be evaluated to determine future action at the site, with a Remedial Alternative Analysis to be performed by others.



5.0 REFERENCES

NAVFAC. 2003. Record of Decision, Operable Unit 2, Soil and Groundwater at Site 7 – Fuel Depot Area, Naval Weapons Industrial Reserve Plant, Calverton, New York. January.

Tetra Tech EC, Inc. (TtEC). 2007. Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparging System at Former Naval Weapons Industrial Reserve Plant Calverton, NY. February.

Tetra Tech, Inc. (Tetra Tech). 2013. Performance and Shutdown Evaluation of the Air Sparge/Soil Vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York. November.

LABLES

Table 1 Summary of Groundwater Elevation Data June 2015 NWIRP Calverton Site 7 Calverton, New York

Well ID	Date	Well Elevation (ft amsl)	Total Measured Well Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft amsl)
MW02S	06/24/15	NRE	25.05	18.09	
MW04S	06/24/15	NRE	25.98	18.92	
MW07S	06/24/15	NRE	22.85	16.55	
MW08S	06/24/15	NRE	22.48	16.03	
MW09S	06/24/15	NRE	22.60	15.55	HH
MW10S	06/24/15	56.81	22.75	17.60	39.21
MW11S	06/24/15	55.24	28.18	16.04	39.20
MW12S	06/24/15	55.54	28.88	16.28	39.26
MW16S	06/24/15	58.02	25.66	18.34	39.68
MW17S	06/24/15	57.30	25.36	17.66	39.64
MW19S	06/24/15	NRE	30.31	17.41	
MW20S	06/24/15	NRE	26.13	17.15	
SV1	06/24/15	NRE	27.35	19.50	
SV2	06/24/15	NRE	25.13	19.25	
SV3	06/24/15	NRE	30.20	19.07	-
SV4	06/24/15	NRE	32.10	19.74	
SV5	06/24/15	NRE	30.88	19.30	
SV6	06/24/15	NRE	31.99	19.92	
SV7	06/24/15	NRE	30.16	18.71	
SV8	06/24/15	NRE	31.72	19.60	
SV9	06/24/15	NRE	32.08	19.45	
SV10	06/24/15	NRE	31.64	18.74	
SV11	06/24/15	NRE	29.10	15.46	
SV12	06/24/15	NRE	30.65	19.05	
SV13	06/24/15	NRE	29.75	18.70	
SV14	06/24/15	NRE	26.30	19.91	
SV15	06/24/15	NRE	26.58	14.40	

Notes:

amsl - above mean sea level

ft - feet

bTOC - below top of casing

-- - Not Applicable

NRE - No reference elevation available

For SVE wells, field measurements are collected from top of SVE piping.

Ta 2

Summary of Groundwater Chemistry Results

June 2015

NWIRP Calverton Site 7

Calverton, New York

Location	Date	Temp (°C)	pH (SU)	S.C. (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Color (Visual)
MW16S	6/24/2015	14.74	6.51	0.326	0.19	-73.4	7.91	clear
MW17S	6/24/2015	14.64	6.02	0.277	0.35	-51.2	7.05	clear
SV2	6/24/2015	14.37	5.99	0.163	0.27	-42.2	4.77	clear
SV4	6/24/2015	14.68	6.08	0.223	0.14	-39.0	9,99	clear
SV11	6/24/2015	15.80	6.41	0.227	0.71	-8.3	9.74	clear
SV13	6/24/2015	12.94	6.18	0.193	1.20	1.3	0.74	clear
SV15	6/24/2015	15.10	6.37	0.181	2.45	-15.1	7.82	clear

Notes:

mS/cm = milliSiemens per centimeter

NTU = nephelometric turbidity units

mg/L = milligrams per liter

°C = degrees celsius

mV = millivolts

SU = standard units

ORP = oxidation/reduction potential

NWIRP = Naval Weapons Industrial Reserve Plant

Table 3 Summary of Groundwater Analytical Results

June 2015

NWIRP Calverton Site 7 Calverton, New York

				VOCs (Me	thod 8260)			SVOCs (Method 8270)	Metals (Method 6010)
MW17S SV2 SV4 DUP-1 (SV4)	Date Sampled	Benzene	Ethyl- benzene	Freon 113	Naph- thalene	Toluene	Total Xylenes	2-Methyl- naphthalene	Total Lead
2013 Proposed	Closeout Goal (1)	5	5	5	50	5	5	50	15
MW16S	6/24/2015	1.0 U	14	1.0 U	12	1.0 U	36	9.1 J	2.5 U
MW17S	6/24/2015	1.0 U	9.5	0.83 J	38	1.0 U	30	23	2.8 J
SV2	6/24/2015	5.0 U	210	5.0 U	36	1.4 J	1282	56	2.5 U
SV4	6/24/2015	1.0 U	8.7	1.6 J	9.3	1.0 U	43	7.7 J	2.5 U
DUP-1 (SV4)	6/24/2015	1.0 U	8.8	1.4 J	11	1.0 U	43	7.5 J	2.5 U
SV11/MW40S	6/24/2015	1.0 U	0.20 J	11	1.8 U	0.27 J	1.7 J	5.0 U	2.5 U
SV13	6/24/2015	1.0 U	7.9	1.0 U	6.6	0.72 J	18	5.0 U	2.5 U
SV15	6/24/2015	1.0 U	1.0 U	1.0 U	0.38 U	1.0 U	3.0 U	5.0 U	2.5 U

Notes:

U - Not detected above laboratory detection limit (DL). Value given is limit of detection (LOD).

J - Estimated value

NA - Not sampled / analyzed for associated parameter

VOC - volatile organic compound

SVOC - semi-volatile organic compound

All values presented in micrograms per liter (µg/L).

Bold values indicate detections. Shading indicates detections in exceedance of the 2013 Proposed Closeout Goal.

NWIRP = Naval Weapons Industrial Reserve Plant

¹Clean-up criteria taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

				VOCs (Me	thod 8260)			SVOCs (Method 8270)	Metals (Method 6010)
Well ID	Date Sampled	Benzene	Ethyl- benzene	Freon 113	Naph- thalene	Toluene	Total Xylenes	2-Methyl- naphthalene	Total Lead
2013 Proposed Cla	oseout Goal (1)	5	5	5	50	5	5	50	15
MW16S	12/9/2013	1.0 U	16.9	1.0 U	14.3 J	0.25 J	64.1	1.9 U	41
MW16S	3/26/2014	1.0 U	9.8	1.0 U	8.7	1.0 U	9.4	1.2 J	1.5 U
MW16S	6/18/2014	1.0 U	17	1.0 U	14	0.22 J	26	7.3 J	1.8 J
DUP-1 (MW16S)	6/18/2014	1.0 U	14	1.0 U	13	1.0 U	23	3.6 J	1.1 J
MW16S	9/24/2014	1.0 U	6.6	1.1 J	7.0	1.0 U	15	6.7 J	2.5 U
MW16S	12/16/2014	1.0 U	12	5.2	2.2 J	1.0 U	4.3 J	1.2 J	3.3 J
MW16S	3/18/2015	1.0 U	5.8	0.83 J	5.6	1.0 U	13	4.4 J	2.5 U
MW16S	6/24/2015	1.0 U	14	1.0 U	12	1.0 U	36	9.1 J	2.5 U
MW17S	12/10/2013	1.0 U	7.1	1.0 U	22.7 J	0.25 J	10.3	1.9 U	18
MW17S	3/26/2014	1.0 U	17	1.0 U	41	0.20 J	36	5.0 J	13.1
MW17S	6/18/2014	1.0 U	22	1.0 U	40	0.21 J	38	9.4 J	10.8
MW17S	9/24/2014	1.0 U	12	1.0 U	28 J	0.20 J	30	23	6.0
DUP-1 (MW17S)	9/24/2014	1.0 U	12	1.0 U	32	0.21 J	37	22	6.3
MW17S	12/16/2014	1.0 U	22	1.0 U	36	1.0 U	69	8.3 J	3.7 J
MW17S	3/18/2015	1.0 U	11	0.38 J	17	1.0 U	23	5.0 U	2.6 J
MW17S	6/24/2015	1.0 U	9.5	0.83 J	38	1.0 U	30	23	2.8 J
SV2	12/12/2013	1.0 U	98.9	1.0 U	28.2 J	1.4	645 J	20.2	26
DUP-1 (SV2)	12/12/2013	1.0 U	102	1.0 U	29.6 J	1.4	626	20.4	33
SV2	3/27/2014	1.0 U	140	1.0 U	24	0.77 J	275	42	0.813 U
SV2	6/18/2014	1.0 U	130	1.0 U	26	1.0 J	392	58	2.5 U
SV2	9/24/2014	2.5 U	140	2.5 U	37	1.6 J	726	83	2.5 U
SV2	12/16/2014	2.5 U	160	2.5 U	33	1.2 J	838	70	2.5 U
SV2	3/18/2015	1.0 U	160	1.0 U	33	0.98 J	921	60	2.5 U
DUP-1 (SV2)	3/18/2015	1.0 U	170	1.0 U	37	0.88 J	866	62	2.5 U
SV2	6/24/2015	5.0 U	210	5.0 U	36	1.4 J	1282	56	2.5 U
SV4	12/12/2013	1.0 U	1.0 U	1.0 U	17.4 J	1.0 U	5.0	1.9 U	2.5
SV4	3/27/2014	1.0 U	1.9	1.0 U	7.0	1.0 U	2.5	6.7 J	1.9 U
SV4	6/18/2014	1.0 U	1.7 J	0.45 J	7.1	1.0 U	1.6 J	4.3 J	1.1 J
SV4	9/24/2014	1.0 U	4.6 J	2.6 J	14	1.0 U	11	11	2.0 U
SV4	12/16/2014	1.0 U	5.2	0.41 J	11.	1.0 U	14	4.3 J	0.906 J
SV4	3/18/2015	1.0 U	8.2	0.77 J	7.4	1.0 U	29	5.9 J	2.5 U
SV4	6/24/2015	1.0 U	8.7	1.6 J	9.3	1.0 U	43	7.7 J	2.5 U
DUP-1 (SV4)	6/24/2015	1.0 U	8.8	1.4 J	11	1.0 U	43	7.5 J	2.5 U
SV11/MW40S	12/12/2013	5.0 U	1.8 J	137	23.6 J	3.2 J	9.1 J	1.9 U	9,5
SV11/MW40S	3/27/2014	1.0 U	1.2	52 J	9.1	0.64 J	8.5	2.6 J	1.1 U
DUP-1 (SV11)	3/27/2014	1.0 U	0.86 J	36 J	7.9	0.48 J	6.8	2.5 J	1.9 U
SV11/MW40S	6/18/2014	1.0 U	0.27 J	31	2.7 U	0.28 J	1.4 J	5.0 U	2.5 U
SV11/MW40S	9/24/2014	1.0 U	0.54 J	32	6.9	0.78 J	5.9 J	5.0 U	2.5 U
SV11/MW40S	12/16/2014	1.0 U	0.21 J	15	2.6 J	1.0 U	2.0 J	5.0 U	2.5 U
SV11/MW40S	3/18/2015	1.0 U	0.27 J	8.8	0.84 U	1.0 U	1.2 J	5.0 U	2.5 U
SV11/MW40S	6/24/2015	1.0 U	0.20 J	11	1.8 U	0.27 J	1.7 J	5.0 U	2.5 U
SV13	12/11/2013	1.0 U	0.40 J	1.0 U	2.0 UJ	1.0 U	2.7 J	1.9 U	2.2 U
SV13	3/26/2014	1.0 U	8.7	1.0 U	4.4	1.4	23	5.0 U	0.813 U
SV13	6/18/2014	1.0 U	8.5	1.0 U	6.6	0.89 J	18	1.0 J	2.5 U
SV13	9/24/2014	1.0 U	9.2	1.0 U	7.0	1.1 J	25	9.7	2.5 U
SV13	12/16/2014	1.0 U	6.2	1.0 U	4.0 J	0.25 J	13	5.0 U	2.5 U
DUP-1 (SV13)	12/16/2014	1.0 U	6.2	1.0 U	4.8 J	0.21 J	13	5.0 U	2.5 U
SV13	3/17/2015	1.0 U	15	1.0 U	7.5	1.0 J	28	5.0 U	2.5 U
SV13	6/24/2015	1.0 U	7.9	1.0 U	6.6	0.72 J	18	5.0 U	2.5 U
SV15	12/12/2013	1.0 U	1.0 U	0.77 J	2.0 UJ	1.0 U	3.0 UJ	9.8	1.1 J
SV15	3/27/2014	1.0 U	1.0 U	0.63 J	1.2	1.0 U	3.0 U	9.0 J	0.813 U
SV15	6/18/2014	1.0 U	1.0 U	0.39 J	0.49 U	1.0 U	3.0 U	5.0 U	1.7 J
SV15	9/24/2014	1.0 U	1.0 U	0.40 J	0.88 U	1.0 U	3.0 U	1.4 J	2.5 U
SV15	12/16/2014	1.0 U	1.0 U	1.0 U	0.63 J	1.0 U	3.0 U	4.0 J	2.5 U
SV15	3/18/2015	1.0 U	1.0 U	1.0 U	0.36 U	1.0 U	3.0 U	5.0 U	15.4
SV15	6/24/2015	1.0 U	1.0 U	1.0 U					

Notes:

U - Not detected above laboratory detection limit (DL). Value given is limit of detection (LOD).

J - Estimated value

NA - Not sampled / analyzed for associated parameter

VOC - volatile organic compound

SVOC - semi-volatile organic compound

All values presented in micrograms per liter (µg/L).

Bold values indicate detections. Shading indicates detections in exceedance of the 2013 Proposed Closeout Goal.

NWIRP = Naval Weapons Industrial Reserve Plant

¹Clean-up criteria taken from the Performance and Shutdown Evaluation of the Air Sparge Soil vapor Extraction System, Site 7 Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Table 5A Summary of Historical Groundwater Analytical Results - Monitoring Wells NWIRP Calverton Site 7 Calverton, New York

Constituent	2003 ROD Remediation	2013 Proposed											10	MW04S			V 10 8	77.00	. S. S. S. S.		-		-		-
	Goal ⁽¹⁾	Closcout Goal ⁽²⁾	3/30/2006	6/20/2006	8/29/2006	10/31/2006	1/11/2007	3/8/2007	6/20/2007	9/18/2007	12/17/2007	3/17/2008	6/23/2008	9/8/2008	12/15/2008	3/25/2009	12/15/2009	3/1/2010	12/15/2010					MARKET I	
South Color													-				22000	3.1.2010	12/15/2010	4/14/2011	12/7/2011	3/28/2012	12/5/2012	4/2/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			-										
Ethylbenzene	5	5	89,9	ND	ND	ND	ND		-				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5						-	13,5	ND	ND	ND	17.9	ND	ND	ND	2.6	ND	2.0	51.1	2.4	2.4				
		3	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100			-		2.4	ND	ND	ND	ND
Naphthalene	10	50	30.7	ND	ND	ND	ND	1.21	ND	ND		-	-	ND	ND	ND	ND	ND	ND	0.64 J	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	-		1.00		ND	ND	5.2	ND	ND	ND	1.1J	ND	ND	4.91	3.3	ND	ND	ND	ND	-
Total Xylenes				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NID.		-		_	IND.	ND	ND
Total Aylenes	5	5	225.0	ND	ND	ND	ND	24.5	ND	ND	ND			-		ND	MD	ND	ND	ND	ND	ND	ND	ND	ND
										ND.	ND	53.2	ND	ND	ND	ND	ND	2.5	39.7	ND	ND	ND	0.72J	ND	ND

Constituent		2013 Proposed Closeout Goal ⁶²⁶		100	400							N. Carlo	9-12		MW07S	No. of							All Control				
	Goaf ⁽¹⁾	Casconi Gogi	3/30/2006	6/20/2006	8/29/2006	10/30/2006	1/11/2007	3/8/2007	6/21/2007	9/19/2007	12/18/2007	3/18/2008	6/25/2008	9/10/2008	12/15/2008	3/25/2009	12/15/2009	3/2/2010	8/25/2010	10/13/2010	1/2/2011	4/14/2011	12/7/2011	3/28/2012	12/6/2012	4/3/2013	T
Benzene	1	5	ND	ND	ND	ND																		072072012	12/0/2012	4/3/2013	12/12/2013
thylbenzene	-		-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		-	-						
	3	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	170				ND	0.49J	ND	0.43J	ND	0.30	0.51J	ND	ND	ND	ND	ND	ND	ND	NE	
Naphthalene	10		-			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N.	-			-	ND	ND	ND
	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.73						ND	ND	ND	ND	ND	ND	ND	ND	ND
Foluene	5	5	ND	ND	ND	ND	ND					NO	1.73	1.1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		-
Total Xylenes	1					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				-	ND	ND	ND	ND
out Aylenes	,	5	- ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
											- ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND - not detected above laboratory detection limit
J- Estimated value
All values presented in micrograms per liter (µg/L)
Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.
Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.
SVE = soil values extraction
NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc. (2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 - Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Table SA Summary of Historical Groundwater Analytical Results - Monitoring Wells NWIRP Calverton Site 7 Calverton, New York

	2003 ROD Remediation	2013 Proposed													MW10S								\$500.00				
Constituent		Closeout Goal ⁽³⁾	3/30/2006	6/20/2006	8/29/2006	10/30/2006	1/11/2007	3/8/2007	6/21/2007	9/19/2007	12/18/2007	3/18/2008	6/25/2008	9/10/2008	12/15/2008	3/25/2009	12/15/2009	3/2/2010	8/25/2010	10/13/2010	12/15/2010	4/14/2011	12/7/2011	3/28/2012	12/6/2012	4/3/2013	12/12/2013
Benzene	1	5	ND	ND	3.0	5.6	ND	2.1	2.4	0.89J	ND	0.473	ND	0.46J	ND	ND	0.34	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	89.5	121.0	86.1	202.0	42.2	148.0	193.0	64.1	75.0	104.0	130.0	70.5	140.0	130.0	64.9	79.0	120.0	ND	ND	ND	ND	ND	ND	ND	ND
reon 113	5	5	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	63.2	41.0	89.2	77.3	21.6	40,6	59.6	22.3	26.3	37.9	76.9	54.7	71.8	71.3	27.5	31.1	31.0	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	3.8	8.5	10.6	5.0	ND	1.3	5.8	3.0	1.3	1.1	3.9	3.5	7.7	7.7	1.0	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	209.0	264.0	189.0	399,0	15.5	16.0	130.0	31.6	82.3	192,0	342.0	159,0	355.0	296.0	136	180	190	ND	ND	ND	ND	ND	ND	ND	ND

Constituent	2003 ROD Remediation	2013 Proposed											B-163	MW11S									Bear.		
Construction	Goal ⁽¹⁾	Closeout Goal ⁽²⁾	3/30/2006	6/20/2006	8/29/2006	10/30/2006	1/11/2007	3/8/2007	6/21/2007	9/19/2007	12/18/2007	3/18/2008	6/25/2008	9/10/2008	12/15/2008	3/25/2009	12/15/2009	3/2/2010	12/15/2010	4/14/2011	12/7/2011	3/28/2012	12/6/2012	4/3/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	3.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.5	19,2	12.6	20,4	5,6	2.1	ND	ND	2.2	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND	10.1	7.3	9.0	0.75 J	7.00	1.1 J	ND	ND	1.5J	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.9	9.7	6.2	ND	6.90	1.4	ND	ND	ND	ND	ND	ND	ND

Notes:

ND- not detected above laboratory detection limit

J - Estimated value

All values presented in micrograms per liter (µg/L)

Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal

Beginning in 2014, results are compared to the 2019 Proposed Closeout Goal.

SVE = soil vapor extraction

NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Wespons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech November 2013.

Table 5A Summary of Historical Groundwater Analytical Results - Monitoring Wells NWIRP Calverton Site 7 Calverton, New York

Constituent	2003 ROD Remediation	2013 Proposed															MW16S														
Constituent	Goal ^(B)	Closeout Goaf ²⁾	3/27/2006	6/20/2006	8/28/2006	10/31/2006	1/11/2007	3/5/2007	6/20/2007	9/20/2007	12/17/2007	3/19/2008	6/24/2008	9/8/2008	12/15/2008	3/24/2009	12/14/2009	3/1/2010	12/15/2010	4/14/2011	12/7/2011	3/27/2012	12/5/2012	4/2/2013	12/12/2013	3/26/2014	6/18/2014	9/24/2014	12/16/2014	3/18/2015	6/24/2015
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	34.5	ND	ND	ND	ND	ND	ND	ND	ND	14.0	5.2	ND	ND	12.7	0.37	7,9	0.37 J	2.8	1.4	1.6	5.8	ND	16,9	9.8	17	6.6	12	5,8	14
reon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1 J	5.2	0.83 J	ND
Naphthalene	10	50	54.6	ND	ND	ND	ND	ND	ND	ND	ND	17.6	1.3 J	ND	ND	13.2	ND	7.9	ND	2.4	1.2 J	1.5 J	10,2	5.0 J	14.3 J	8.7	14	7.0	2.2 J	5.6	12
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25 J	ND	0.22 J	ND	ND	ND	ND
Total Xylenes	5	5	9.1	ND	ND	ND	ND	ND	ND	0.41 J	ND	25.1	9.5	ND	ND	31.5	1.40	28,5	0.78 J	6.6	5.3	4.9	18.0	ND	64.1	9.4	26	15	4.3 J	13	36

	2003 ROD Remediation	2013 Proposed	1000														MW178								Ber. 111						
Constituent	Goal ⁽¹⁾	Closcout Goal ⁽¹⁾	3/27/2006	6/20/2006	8/28/2006	10/31/2006	1/11/2007	3/5/2007	6/20/2007	9/20/2007	12/17/2007	3/19/2008	6/24/2008	9/8/2008	12/15/2008	3/24/2009	12/14/2009	3/1/2010	12/14/2010	4/14/2011	12/7/2011	3/27/2012	12/5/2012	4/2/2013	12/12/2013	3/26/2014	6/18/2614	9/24/2014	12/16/2014	3/18/2015	6/24/2015
Benzene	1	5	4.8	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	70.6	22.2	5.6	7.8	2.1	16.9	29.2	26.0	25.1	26.6	17.0	30.4	10.5	12.8	2.90	0.99 J	ND	2.7	0.78 J	4.2	9,2	4.7	7.1	17	22	12	22	11	9.5
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.38 J	0.83 J
Naphthalene	10	50	69.5	38.5	ND	20.3	4.7	29.3	70.0	81.1	78.3	60.6	54,4	114.0	30.3	34.1	12.50	6.80	4.73	19.3	2.1 J	14.9	28.8	13,4 J	22.7 J	41	40	28 J	36	17	38
Toluene	5	5	ND	1.9	1.2	ND	ND	ND	0.44J	0.34J	ND	ND	0.59 J	0.57 J	0.25 J	0.33 J	0.32	ND	ND	ND	ND	ND -	ND	ND	0.25 J	0.20 J	0.21 J	0.20 J	ND	ND	ND
Total Xylenes	5	5	179.0	75.0	24.2	38.4	9.3	35.8	90.3	84,6	78.8	59.3	53.6	92.1	23.3	39.2	14.00	7.20	1.70	5.0	3.0	14.2	47.5	12.1	10.3	36	38	30	69	23	30

Notes:

ND - not detected above laboratory detection limit
J - Estimated value
All values greated in micrograms per liter (µg/L)
Beld values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.
Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.

NVIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shuddown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 - Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Table SA Summary of Historical Groundwater Analytical Results - Monitoring Wells NWIRP Calverton Site 7 Calverton, New York

	2003 ROD Remediation	2013 Proposed												MW19S	100													MV	V02S		
Constituent		Clascout Goaf th	3/27/2006	6/20/2006	8/28/2966	10/31/2006	1/11/2007	3/5/2007	6/21/2007	9/20/2007	12/17/2007	3/19/2008	6/24/2008	9/9/2008	12/15/2008	3/24/2009	12/15/2009	3/1/2010	12/14/2010	4/14/2011	12/7/2011	3/27/2012	12/5/2012	4/2/2013	12/12/2013	12/15/2008	3/25/2009	3/28/2012	12/6/2012	4/3/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5.0	41.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.47 J	ND	ND	ND	0.46 J	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	6.8	80.1	ND	ND	ND	ND	ND	7.4	ND	3.8	ND	0.62 J	ND	1.0 J	ND	ND	ND	ND	ND	1.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.40 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	8.2	52.7	ND	ND	ND	ND	ND	ND	ND	3.0 J	ND	ND	ND	1.0 J	ND	ND	ND	ND	ND	1.53	ND	ND	ND	ND	ND	ND	ND	ND	ND

	2003 ROD	2013 Proposed	MW03S			MV	085		2 (2)			MW-09S					MW-12S							MW20S	BIS.			
Constituent		Closcout Goaf th	12/15/2008	12/15/2008	3/25/2009	3/28/2012	12/6/2612	4/3/2013	12/12/2013	3/25/2009	3/28/2012	12/6/2012	4/3/2613	12/12/2013	3/25/2009	3/28/2012	12/6/2012	4/3/2013	12/12/2013	12/15/2009	3/1/2010	12/14/2010	4/14/2011	12/8/2011	3/28/2012	12/6/2012	4/3/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
thylbenzene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
reon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.55 J	0.69 J	ND	ND	ND
Naphthalene	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
otal Xylenes	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND - not detected above laboratory detection limit
J - Estimated value
All values presented in micrograms per liter (µg/L)
Beld values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.
Beginning in 2014, results are compared to the 2013 Proposed Closeous Goal.

SYE = soil vagor extraction
NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shuddown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calvertont, New York prepared by Tetra Tech in November 2013.

Table 5B nadie 3B cal Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calverton, New York Summary of Historical Groun

Constituent	2003 ROD Remediation	2013 Proposed											S	/1										
Constituent	Goal ^(t)	Closcout Goal ⁽²⁾	3/29/2006	6/19/2006	8/28/2006	19/30/2006	3/7/2007	6/20/2007	9/20/2007	12/18/2007	3/18/2008	6/23/2008	9/9/2008	12/16/2008	3/26/2009	12/15/2009	3/2/2010	12/15/2010	12/15/2010	12/8/2011	3/28/2012	12/7/2012	4/4/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.8	ND	ND	ND	ND	ND	1.7	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.44J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	2.1	ND	ND	ND	0.77J	ND	ND	ND	ND	ND	1.1J	ND	1.6J	ND	ND	ND	ND	ND	0.52 J	ND	ND	ND
Γoluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	ND	ND	ND	ND	0.903	ND	ND	0.68J	ND	ND	ND	ND	15.9	ND	ND	ND	ND	ND	ND	ND	ND	ND

	2003 ROD Remediation	2013 Proposed													3 300		SV2								B000						
Constituent	Goal ⁽¹⁾	Closcout Goaf ²⁾		6/19/2006	8/28/2006	19/30/2006	3/6/2007	6/20/2007	9/20/2007	12/18/2007	12/18/2007 DUP	3/18/2008	6/23/2008	9/9/2008	3/26/2009	3/2/2010	8/25/2010	10/13/2010	12/15/2010	4/14/2011	12/8/2011	3/28/2012	12/7/2012	4/4/2013	12/12/2013	3/27/2014	6/18/2014	9/24/2014	12/16/2014	3/18/2015	6/24/201
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
thylbenzene	5	5	256.0	82.1	156	156	132	154	234	31,2	37.5	180	295	276	251	126	11	6.5	6.4	38.1 J	6.0	215	5,5	16.1	98.9	140	130	140	160	160	210
reon 113	5	5	ND	ND	ND	ND	0.89J	ND	ND	ND	ND	0.40J	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	88.7	26	43.9	30.4	92.1	73.1	79.7	7.2	8.7	68	111	84.4	63.9	46,6	11	ND	3.6 J	16.7 J	1.1 J	56.1	ND	6.9 J	28.2 J	24	26	37	33	33	36
Toluene	5	5	ND	ND	2.5	1.1	1.4	0.91J	0.80J	ND	ND	1.9	2.5	1.9J	1.7J	0.73 J	ND	ND	ND	ND	ND	0.46 J	ND	ND	1.4	0.77 J	1.0 J	1.6 J	1.2 J	0.98 J	1.4 J
otal Xylenes	5	5	1,380	424	327	376	523	804	1,240	144	173	1,190	1,540	1,830	1,520	738	85	52,5	52,5	259 J	45.6	903	30.8	93.2	645 J	275	392	726	838	921	1282

Notes:

ND - not detected above laboratory detection limit

J - Estimated value

All values presented in micrograms per liter (µg/L)

Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.

Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.

SVE = soil vapor extraction

NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 - Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech In November 2013.

Table 5B Summary of Historical Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calverton, New York

Constituent	2003 ROD Remediation	2013 Proposed												S	V3										E 80	
Constituent	Goal ⁽¹⁾	Closcout Goal ⁽³⁾	3/29/2006	6/19/2006	8/29/2006	10/31/2006	3/6/2007	6/21/2007	9/19/2007	12/18/2007	3/19/2008	6/24/2008	9/9/2008	12/16/2008	3/25/2009	12/15/2009	3/2/2010	8/25/2010	10/13/2010	12/15/2010	4/14/2011	12/7/2011	3/28/2012	12/5/2012	4/2/2013	12/12/2013
Benzene	1	5	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	117.0	3.3	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	57.9	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	0.60 J
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.53 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	168.0	ND	ND	4.2	6.1	ND	ND	0.77J	46.9	ND	ND	ND	54.3	ND	9.4	ND	ND	ND	2.2	ND	0.67 J	ND	5.4J	ND
Toluene	5	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	75.2	ND	ND	ND	ND	ND	ND	ND	30.3	ND	ND	ND	68.7	ND	3.9	ND	ND	ND	0.89 J	ND	ND	ND	ND	ND

Constituent	2003 ROD Remediation	2013 Proposed															S	V4										APPEN	14-1-1	7 6 14		33.75
Constituent	Goal ⁽¹⁾	Closcout Goaf"		6/19/2006	8/28/2006 DUI	10/30/2006	3/7/2006	6/20/2007	9/20/2007	12/18/2007	3/18/2008	6/23/2008	9/9/2008	12/16/2008	3/26/2009	12/15/2009	3/2/2010	8/25/2010	10/13/2010	12/15/2010	4/14/2011	12/8/2011	3/28/2012	12/7/2012	4/4/2013	12/12/2013	3/27/2014	6/18/2014	9/24/2014	12/16/2014	3/18/2015	6/24/28
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5.2	4.0	8.7	4.1	2.1	5.0	10,8	3.6	2.4	7.5	10.5	ND	2.8	0.37J	0.77 J	1.4 J	4.0	6.4	2.6	ND	ND	1.5	1.4	ND	1.9	1.7.1	4.63	5.2	8.2	8.7
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.67 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.45 J	2.6 J	0.41 J	0.77 J	1.61
Naphthalene	10	50	22.2	12.2	43.8	39.3	19.1	28.5	45.7	11.1	18.7	33.2	44.7	16.4	12.6	2.3J	4.4 J	5.4	ND	9.98	10,5	0.63 J	2.7	13.2	6.8 J	17.4 J	7.0	7.1	14	11	74	93
Toluene	5	5	ND	ND	ND	ND	ND	0.64J	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	45.1	37.7	110	59.9	31.7	86,4	187	50.4	73.6	151	205	56.9	62.8	8,4	17.3	14	36	90.6	42.3	1.63	3.4	29.9	6.0	5.0	2.5	1.6 J	11	14	29	43

Notes:
ND - not detected above laboratory detection limit
J - Estimated value
All values presented in micrograms per liter (µg/L)
Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.
Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.
SVE - soil vapore extraction
NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc. (2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech In November 2013.

Table 5B Summary of Historical Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calverton, New York

	2003 ROD	2013 Proposed											S	/5										
Constituent		Closcout Goal ⁽³⁾	3/29/2006	6/19/2006	8/28/2006	10/30/2006	3/7/2007	6/20/2007	9/18/2007	12/17/2007	3/17/2008	6/24/2008	9/8/2008	12/15/2008	3/24/2009	12/15/2009	3/1/2010	12/15/2010	4/14/2011	12/7/2011	3/28/2012	12/5/2012	4/2/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5.2	ND	4.3	1.2	ND	ND	ND	ND	0.38 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	20.3	ND	7.8	5.3	0.63 J	ND	ND	0.70J	ND	ND	ND	ND	ND	ND	ND	ND	1.4 J	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	2.6	ND	ND	ND	ND	ND	ND	ND	0.55 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

4 10 20	2003 ROD	2013 Proposed												SV6								B			
Constituent	Remediation Goal ⁽¹⁾	Closeout Goal ⁽²⁾	3/29/2006	3/29/2006 DUP	6/19/2006	8/28/2006	10/30/2006	3/7/2007	6/20/2007	9/18/2007	12/17/2007	3/17/2008	6/24/2008	9/8/2008	12/15/2008	3/24/2008	12/14/2009	3/1/2010	12/15/2010	4/14/2611	12/6/2011	3/28/2012	12/5/2012	4/4/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	2,8	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	3.4	4.5	2.1	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	6.7	7.8	ND	3.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND - not detected above laboratory detection limit

J - Estimated value
All values presented in micrograms per liter (µg/L)
Beld values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Gosl.
Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.

SVE = soil vapor extraction
NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closcout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Summary of Historical Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calverton, New York

	2003 ROD	2013 Proposed											S	V7							S-86			
Constituent	Remediation Goal ⁽¹⁾	Closeout Goal ⁽³⁾	3/29/2006	6/19/2006	8/29/2006	10/31/2006	3/6/2007	6/21/2007	9/19/2007	12/18/2007	3/19/2008	6/24/2008	9/9/2008	12/16/2008	3/25/2009	12/15/2009	3/2/2010	12/14/2010	4/14/2011	12/7/2011	3/27/2012	12/5/2012	4/2/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	76.1	11.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	95,5	12,5	5.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Foluene	5	5	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	25,2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

	2003 ROD	2013 Proposed									1000		S	V8							10 B			
Constituent	Remediation Goal ⁽¹⁾	Closcout Goaf ²¹	3/29/2006	6/19/2006	8/28/2006	10/30/2006	3/8/2007	6/20/2007	9/18/2007	12/19/2007	3/17/2008	6/23/2008	9/8/2008	12/15/2008	3/24/2009	12/14/2009	3/1/2010	12/13/2010	4/14/2011	12/6/2011	3/28/2012	12/5/2012	4/4/2013	12/12/2013
Benzene	- 1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	61,3	ND	1.2	ND	2.0	ND	ND	ND	3.6	ND	ND	ND	4.7	ND	1.8	ND	0.37 J	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	48.5	ND	2.9	ND	3.6	ND	ND	ND	2.2	ND	ND	ND	4.2	ND	3.5	ND	ND	ND	5.0	ND	ND	ND
l'oluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	294	ND	7.3	ND	24.9	ND	ND	ND	12.4	ND	0.43J	ND	8.7	ND	4.5	ND	ND	ND	ND	ND	ND	ND

Notes:

ND - not detected above laboratory detection limit

J - Estimated value

All values presented in micrograms per liter (µg/L)

Beld values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.

Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.

SVE = soil vapor extraction

NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Table 5B cal Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calverton, New York

	2003 ROD	2013 Proposed									Ren .		S	V9							S 8	E GE		1
Constituent		Closcout Goal ²³	3/29/2006	6/19/2006	8/28/2006	10/30/2006	3/7/2007	6/19/2007	9/18/2007	12/17/2007	3/17/2008	6/23/2008	9/8/2008	12/15/2008	3/24/2009	12/14/2009	3/1/2010	12/13/2010	4/14/2011	12/6/2011	3/28/2012	12/5/2012	4/3/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,8 J	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

	2003 ROD	2013 Proposed	450.16								2003		S	V10							25 B			
Constituent	Remediation Goal ⁽¹⁾	Closcout Goaf ²¹	3/28/2006	6/19/2006	8/28/2006	10/30/2006	3/7/2007	6/20/2007	9/18/2007	12/17/2007	3/17/2008	6/23/2008	9/8/2008	12/15/2008	3/24/2009	12/14/2009	3/1/2010	12/13/2010	4/14/2011	12/6/2011	3/27/2012	12/5/2012	4/5/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND .	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	21.2	ND	ND	ND	0.87J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND - not detected above laboratory detection limit

J - Estimated value

All values presented in micrograms per liter (µg/L)

Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.

Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.

VOC - Volatile Organic Compounds

NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Table SB Summary of Historical Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calveton, New York

Constituent Remedia	2003 ROD Remediation	2013 Proposed														SV	11							0.760				Reference.		
		Closcout Goaf ²⁾		6/19/2006	8/29/2006	10/31/2006	3/5/2007	6/19/2007	9/18/2007	12/19/2007	3/18/2008	6/23/2008	9/8/2008	12/15/2008	3/24/2009	12/14/2009	3/1/2010	12/13/2010	4/14/2011	12/6/2011	3/28/2012	12/7/2012	4/3/2013	12/12/2013	3/27/2014	6/18/2014	9/24/2014	12/16/2014	3/18/2015	6/24/201
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
thylbenzene	5	5	2.5	ND	1.6	1.7	ND	0.31J	ND	ND	1.6	1.2	ND	2.7	0.47J	1.4	1.4	0.87 J	2.7	14	3.6	2.2	3.4	181	1.2 J	ND 0.27 J	ND 0.54 J	ND 0.21 J	ND 0,27 J	ND
Freon 113	5	5	180	ND	130	169	12	37.6	ND	21	156	112	92	86.7	54.1	151	199	103	240 J	145	405 J	191 J	147 J	137	52 J	31	32	15	8.8	0.20 J
Naphthalene	10	50	10.5	ND	10.5	11.8	ND	1.43	ND	1.03	15	11.9	13.4	27.2	5.1	9.4	6.1	2.2J	17.8	10.9 J	17.1	14.7 J	21.8 J	23.6 J	91	ND	69	2.6J	ND	ND
Toluene	5	5	3.7	ND	2.2	2.6	ND	0.64J	0.39J	ND	2.8	3.2	2.1	5.9	0,78J	1.6	3.4	2.5	ND	1.6	5.6	1.4	1.8	3.2J	0.64 J	0.28 J	0.78 J	ND	ND	0.27 J
Total Xylenes	5	5	28,8	ND	17.4	18.3	ND	3.3	3.2	1.3J	24	14.2	12.8	40.8	7.7	16.1	19.1	9.8	36.9	21.4	51.7	24 J	26.5	9.1 J	8.5	1,43	5.9 J	2.0 J	1.2 J	1.73

Constituent	2003 ROD Remediation	2013 Proposed		SVI2																				
Communication	Goal ⁽¹⁾	Closeout Goal	3/29/2006	6/19/2006	8/29/2006	10/31/2006	3/6/2007	6/21/2007	9/19/2007	12/18/2007	3/19/2008	6/24/2008	9/9/2008	12/16/2008	3/25/2009	12/15/2009	3/2/2010	12/14/2010	4/14/2011	12/7/2011	3/28/2012	12/6/2012	4/2/2013	12/12/2013
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	26.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND '	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54 J	0.50 J	ND
Naphthalene	10	50	15.3	ND	ND	ND	ND	ND	ND	ND	· ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	· ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	5	3.5	ND	ND	ND	ND	ND	ND	ND ·	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND - not detected above laboratory detection limit

J - Estimated value
All values presented in micrograms per liter (µg/L)

Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal
Beginning in 2014, results are compared to the 2013 Proposed Closcout Goal.

SVE = soil vapor extraction

NWIRP = Naval Weapons Industrial Reserve Plant

(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeous Goal taken from the Performance and Shutdown Evaluation of the Air Sparge Soil vapor Extraction System, Site 7 – Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

Table SB Summary of Historical Groundwater Analytical Results - SVE Wells NWIRP Calverton Site 7 Calverton, New York

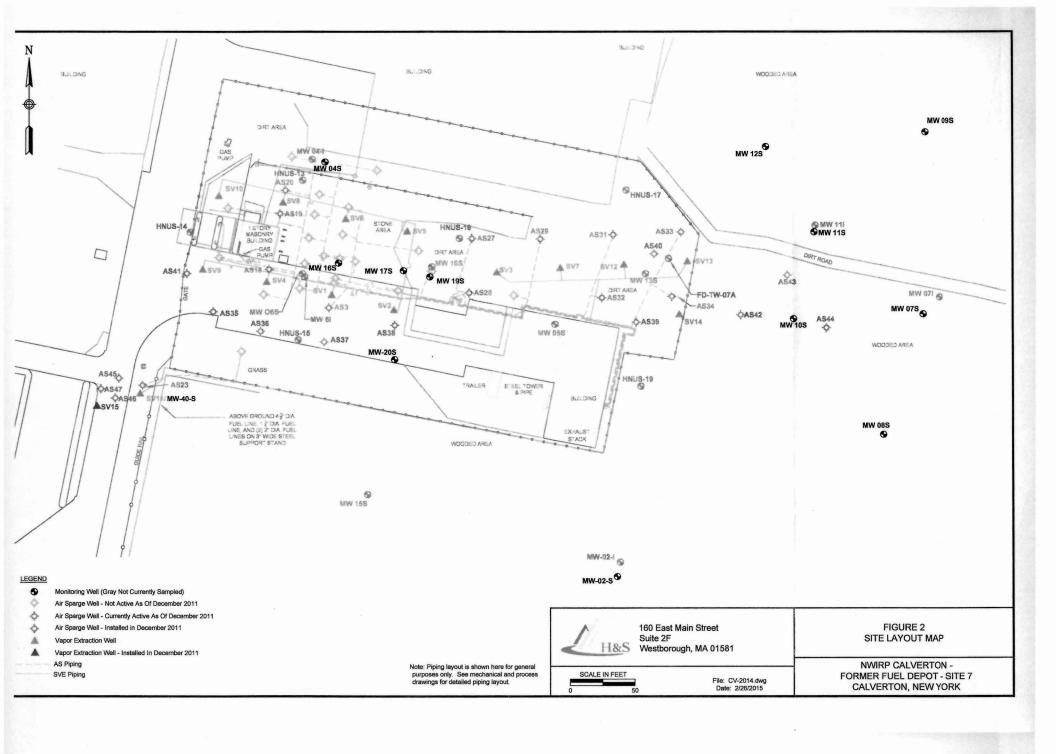
Constituent	2003 ROD Remediation	2013 Proposed															s	V13					15 50	Service of the last of the las	0 - 000	Brans.						1000
		Closeout Goal ⁵³	3/29/2006	6/19/2006	8/29/2006	10/31/2006	3/6/2007	6/21/2007	9/19/2007	12/18/2007	3/19/2008	6/24/2008	9/9/2008	12/16/2008	3/25/20119	12/15/2009	3/2/2010	8/25/2010	10/13/2010	12/14/2010	4/14/2011	12/7/2011	3/28/2012	12/6/2012	4/2/2013	12/12/2013	3/26/2014	6/18/2014	9/24/2014	12/16/2014	3/17/2015	6/24/201
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND																						
				ND				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	87.7	63.9	30,5	ND	29.9	26.6	25.0	14.7	35.1	25.8	33.4	18.8	21.5	19.9	20,6	0.96 J	0.71 J	15.2	10.5	10,6	9.5	26.6	14.3	0.40 J				-		
Freon 113	5	5	1.4	ND	ND	ND	0.49J	0.35J	0.35J	ND	ND	ND	0.28J	ND	vm		-							-	14.5	0.40)	8.7	8.5	9.2	6.2	15	7.9
Naphthalene	10	50										ND	0.283	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
чарнивание	10	30	74.5	50.5	20.4	2.2	16.4	15.6	15.8	7.9	13.4	14.0	14.1	9.3	10.2	8.0	10.3	ND	ND	10.4	4.3	223	6.0	12.7	9.71	ND	4.4	6.6	7.0	401	7.5	1
Toluene	5	5	17.1	17.9	15.0	ND	12.2	9.0	10,3	4.7	8.5	6.7	12.6	6.5	11	24	8.6	ND	ND	255										-	7.3	6.6
Total Xylenes	5	5	192.0	113.0	101.0	ND	00.0									3,4	8.0	ND	ND	0.75	2,4	0.78 J	3.3	1.5	3.9	ND	1.4	0.89 J	1.1 J	0.25 J	1.0 J	0.72 J
	-		192.0	113.0	101.0	ND	99.2	88,0	86.8	45.9	101.0	74.9	104	49.5	61.9	50.1	64.8	1.8 J	7,0	38.1	36.6	16.0	37.3	66.0	41.7	2.7	23	18	25	13	28	18

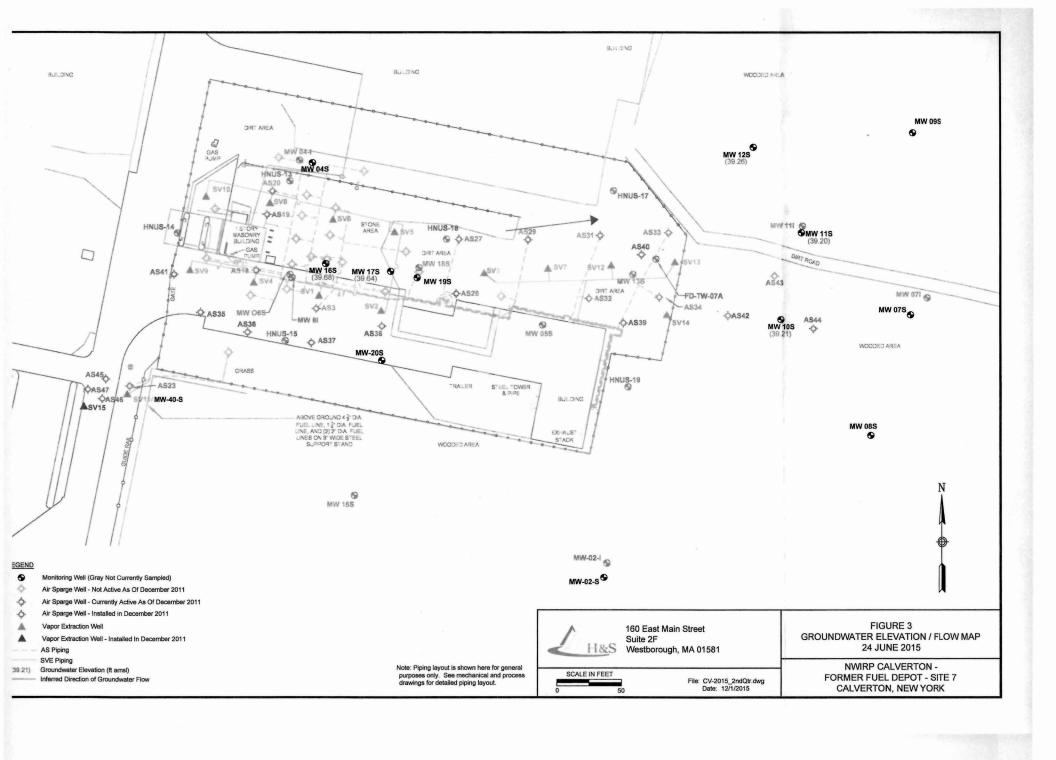
Constituent	2003 ROD Remediation	2013 Proposed		SVI4										SV-15									
	Goal ⁽¹⁾	Closcout Goaf	12/15/2009	3/2/2010	12/14/2010	4/14/2011	12/7/2011	3/28/2012	12/6/2012	4/2/2013	12/12/2013	3/28/2012	12/7/2012	4/2/2013	12/12/2013	3/27/2014	6/18/2014	9/24/2014	12/16/2014	3/18/2015	6/24/201		
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Ethylbenzene	5	5	0.7	1.1	1.1	0.52 J	ND	0.82 J	ND	ND	1.1	2.0	ND	ND	ND ND	ND	ND	ND	ND	ND ND	ND ND		
Freon 113	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4	0.53 J	0.45 J	0.77 J	0.63 J	0.39 J	0.40 J	ND	ND	ND		
Naphthalene	10	50	4.3	5.2	1.8	1.8 J	ND	ND	1.4 J	ND	ND	2.4	1.7 J	ND	ND	ND	ND	ND	0.63 J	ND	ND		
Toluene	5	5	ND	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Total Xylenes	5	5	11,5	13,3	6,8	2.3 J	ND	3.9	ND	ND	3.9	11.6	, ND	· ND	ND	ND	ND	ND	ND ND	ND	ND		

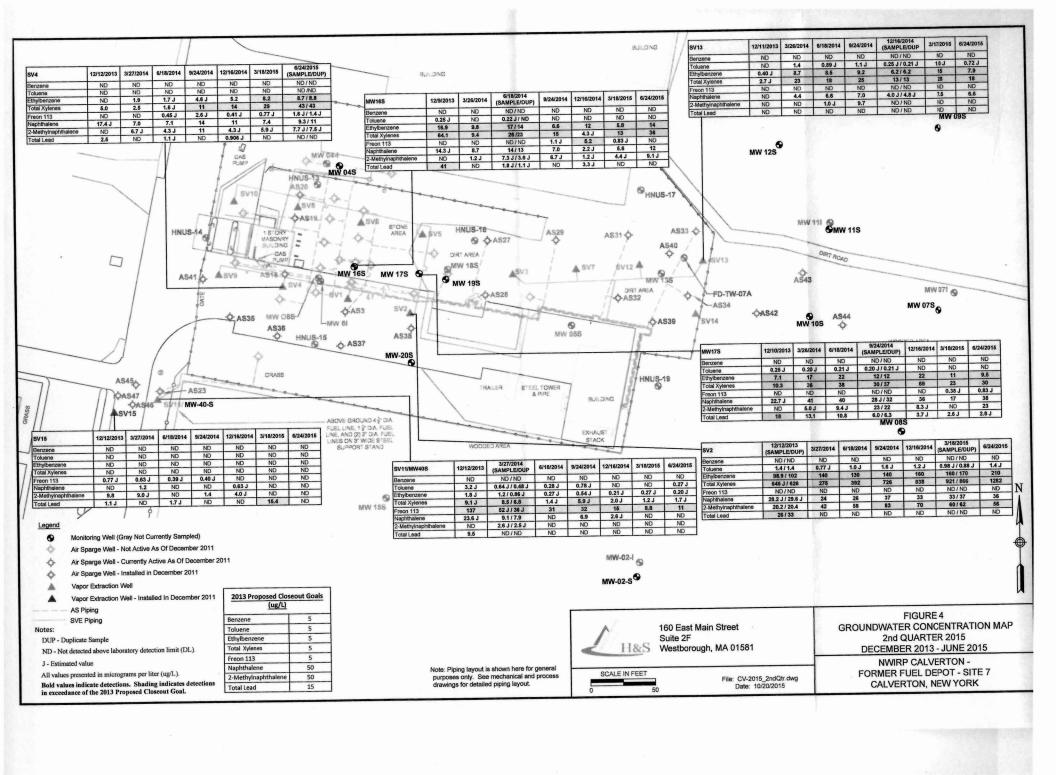
Notes:
ND - not detected above laboratory detection limit
J - Estimated value
All values presented in micrograms per liter (µg/L)
Bold values equal or exceed the clean-up criteria. Prior to 2014, results are compared to the 2003 ROD Remediation Goal.
Beginning in 2014, results are compared to the 2013 Proposed Closeout Goal.
SVE = soil vapor extraction
NWIRP = Naval Wespons Industrial Reserve Plant

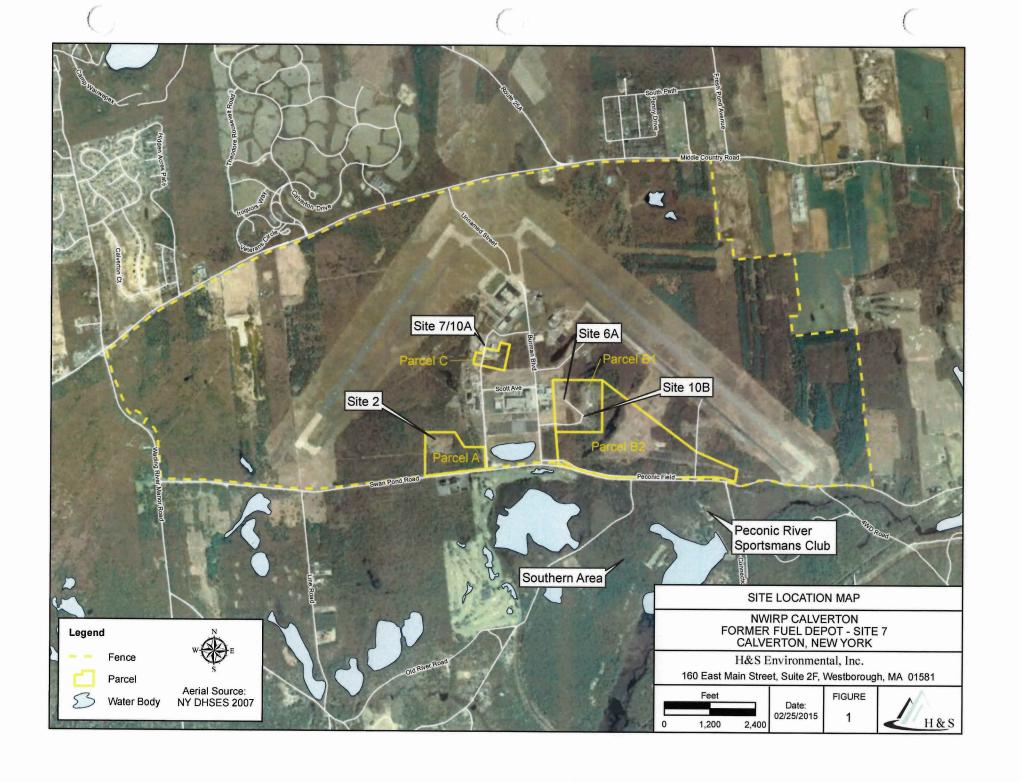
(1) 2003 ROD Remediation Goal taken from the Final Operations and Maintenance Manual for Soil Vapor Extraction/Air Sparge System (February 2007) prepared by Tetra Tech EC, Inc.
(2) 2013 Proposed Closeout Goal taken from the Performance and Shutdown Evaluation of the Air Sparge/Soil vapor Extraction System, Site 7 - Former Fuel Depot, Naval Weapons Industrial Reserve Plant, Calverton, New York prepared by Tetra Tech in November 2013.

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VPPENDIX A

CHYIN OF CUSTODY DOCUMENTATION

Date:	6/24	/15



Groundwater Level Measurement Sheet

Project Site: NWIRP Calverton Site 7

Location: Calverton, NY

Field Crew: JF RH

Weather: Solinst Arch
Weather: Clar, NOF
Time of Low Tide: N/A
Time of High Tide: N/A

Well ID	Time	Depth to Water (ft bTOC)	Total Depth of Well (ft bTOC)	Comments
SV-1	13/2	19.50	27.35	4"
SV-2	1344	19,25	25,13	4"
SV-3	0849	19,07	30, 20	4"
SV-4	1145	19,74	32.10	4"
SV-5.	1200	19,30	30.88	4"
SV-6	1155	19.92	31.99	4"
SV-7		18,71	30.16	4"
SV-8	0848	19.60	31,72	4"
SV-9	1150	19.45	32,08	4"
SV-10	1152	18.74	31,64	4"
SV-11/MW-40S	1845	15.46	29.15	2"
SV-12	0847	19:05	33.65	4"
SV-13	0813	18.70	29.75	4"
SV-14	0853	19.91		4"
SV-15	2950	14 40	26.32.	2"
MW-02S	1610	18.09	25,05	4"
MW-04S	1153	18,92	25.48	4"
MW-07S	1555	16.55	2285	4"
MW-08S	1605	16.03	22,48	4"
MW-09S	1557 1602	16.28 15,55	28,88 22,60	2"
MW-10S	1548	17.60	7275	4" ***
MW-115	1551	16.04	28:18	2" ***

Signature:

Date: 62711

Date: 6/24 /	15	
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Groundwater Level Measurement Sheet

Project Site: NWIRP Calverton

Location: Calverton, NY

Field Crew: Time of Low Tide: N/A

Time of High Tide: N/A

Well ID	Time	Depth to Water (ft bTOC)	Total Depth of Well (ft bTOC)	Comments
MW-12S	1557	14,28	78.88	2" ***
MW-16S	1245	18,34	25.66	2" ***
MW-17S	0859 1330	17.41 17.66	30.31 25.36	2" ***
MW-19S	0859	17.41	30,31	2"
MW-20S	1414	17,15	76.13	2"

Signature:	Man	
Signature	#/	

Date: 6/2711

Low Flow/ Low Stress Groundwater Sampling Log

	Project: Location: Well ID:	SV- 2			- -	Date: Sampler: PID (ppm)	06/24 JG-, R			11/	H&S
	Start Time	: 1435_1	End Time:	513			Fie	ld Testi	ng Equip	ment	
	Well Const	1.5-	# " PVC		_	Make		Model		Ser	ial#
	Depth to W	- A	25			YSI		556		1:	30
	Well Depth			2 10 1 2		LaMotte		2020		5	82
		ımn: <u>5,88</u>		2,8×3	`	Grundfos		2" Pump			(NON)
		Pump in Well			1	Grundfos		RediFlo 2		1	1344
		quired (gal) (ne Removed		n x factor x 3):	11.9	71					,
	Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm ^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
	1440	12/291	41/29en	19,30	14.56	5.87	154	84.6	-6.9	6.76	clear
. 6 01	1445		1	19,30	14.45	5.93	159	0.34	-29.0	5,11	"
25 91 210 91 215 21 25 21	1450			19.31	14.38	5.95	160	0.32	-35, 2	4.52	i,
Leals	1455			19,31	14,44	5.97	160	0,29	-37.9	4.76	11
10.00	1500			19.31	14.42	5.98	162	0.29	-40,4	4.98	(,
N15 21	1505	N /		19.31	14.41	6.00	163	0,28	-41,9	4,80	11
1	1510		W	19,31	14,37	5.99	163	0127	-42,2	4,77	+ 1
ar Compy											
1											
/											
	L										
		ceptance Crite		<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	
		olume = 0.163 olume = 0.65 (-		Sampl	e Collec	1 gal = 3.79	L			
	Time	Sample ID		Container		# Bottles	-	Preservati	ve	Analysis	
	160	sv- Z -06	- 24 15	40 mL CG		3		HCI	-	Select VOC	3
	1		1	1L AG		2				2-methylnar	
	1/	V		250 mL PL		1		HNO3		Lead	
	,										7
	Commen	114 Hz	prop	b bruk	took		6)	21/15 Date			
		4									

Low Flow/ Low Stress Groundwater Sampling Log

Project: Location: Well ID:	NWIRP Calverton Site 7 Calverton, NY SV-	Date: Sampler: PID (ppm)	06/24 /15 	M _{H&S}
Start Time:	120 End Time: 1250		Field Testing Equipme	ent
Well Const		Make	Model	Serial #
Depth to W	ater: 19.39	YSI	556	14733
Well Depth:	32.10	LaMotte	2020	5382
Water Colu	mn: 12,4 x, 105 & 8,113	Grundfos	2" Pump	(ral)
Dedicated I	Pump in Well?: No	Grundfos	RediFlo 2	19344
	quired (gal) (Water Column x factor x 3): 10 moles 10	24,3 g	1	

		(L)	
	1210	wites	21/25
~ 501	145	1	1 1
.4 771	1220		
NB	1225		
	1730		
115	1235		
0 11	1240		
~ 20	1245		
125	1253		V
1710		4	
3 reals			
16			

Time (hh:mm	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1210	02/251	21/250A	19.87	14,49	6.15	230	0,26	-39.8	4.74	Cles
1215	1		14.87	1458	COIL	225	0.18	-42.6	610	li.
1220			14,86	14,59	6.10	775	0.19	-40.6	9.98	11
1225			19.86	14.69	608	226	0.19	-37.9	9.93	14
1730			19.86	14.65	6.09	227	0.18	-38,0	9,79	4
1235			19,86	14.63	(6008)	223	0.17	-3870	10.16	t,
1240			19.80	14,74	6.08	222	0.15	-37.9	9,76	l)
1245			19.86	17,73	6.08	721	0.15	-38.5	10.11	A r
1250		V	19.86	14,68	6,08	722	0.14	-39,0	9.99	14
	1 9						'		'	
	cceptance Crite		<0.3ft	3%	+0.1	3%	10%	+ 10my	100/	

± 10mv

2" Screen Volume = 0.163 gal/ft or 616 ml per foot 1 gal = 3.79 L

4" Screen Volume = 0.65 gal/ft = 2 46 L

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1255)	SV- 4 -06- 24 15	40 mL CG	3	нсі	Select VOCs
T	١,	1L AG	2		2-methylnaphthalene
V		250 mL PL	1	HNO3	Lead
4000	DUP-1-06241	Y. MTIMTO	dor all	Andrew Max	

Comments

Signature

Low Flow/ Low Stress Groundwater Sampling Log

Project:	NWIRP Calverton Site 7	Date:	06/ 24/15	. ^
Location:	Calverton, NY	Sampler:	JG. 1814	- ///
Well ID:	SV-	PID (ppm)		H&S
Start Time:	1045 End Time: 1120		Field Testing Ed	juipment
Well Consti		Make	Model	Serial #
Depth to W	ater: 15.46	YSI	556	14735
Well Depth:	29.10	LaMotte	2020	542
Water Colu	mn: 13,66,163,22,3	Grundfos	2" Pump	(scant)
Dedicated P	Pump in Well?: No	Grundfos	RediFlo 2	19344
Volume Red	quired (gal) (Water Column x factor x 3):	16 7.1		
	ne Removed (gal): 2891	/- (
Time	Volume Flow Pate Donth to Town	I all I	enc I no I on	D 7 - 11/4

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
_	211494	4/45/100	15,45	15,89	6.36	709	0.79	72,9	12.5	(1 tan
1355		ľ	15.45	15,93	6.38	211	0.71	5.3	13.0	MANGER T
1103			15.46	15.86	6.39	216	0.67	-3.2	7.95	Clou
1105			15,46	1582	640	216	0.69	1.5-	9,32	!i
1110		/	15,46	1580	6.41	223	0,71	-7.7	9.93	ы
1115	W	4	15.46	15,83	6.40	224	0.70	-7.1	9.61	11
1120	V	V	15.46	15.80	6-41	777	0.71	-8.3	9.74	11
Acc	eptance Crite	ria:	<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

^{2&}quot; Screen Volume = 0.163 gal/ft or 616 ml per foot

1 gal = 3.79 L

Sample Collection

Time	Sample ID Container		# Bottles	Preservative	Analysis
1123	SV- \\ -06- Z4 15	40 mL CG	3	HCI	Select VOCs
	i i	1L AG	2	***	2-methylnaphthalene
11		250 mL PL	1	HNO3	Lead

106 Itz to put in final	
La front	6/24/15
Signature	Date

^{4&}quot; Screen Volume = 0.65 gal/ft = 2.46 L

Low Flow/ Low Stress Groundwater Sampling Log

Project:	NWIRP Calverton Site 7	Date: 06	/ 24 /15	. ^			
Location:	Calverton, NY	Sampler: <	Z. EH	- ///			
Well ID:	SV- 13	PID (ppm)		H&S			
Start Time:	0825 End Time: 0915	Field Testing Equipment					
Well Consti		Make	Model	Serial #			
Depth to W	ater: 18,70	YSI	556	096100709			
Well Depth:	29,75	LaMotte	2020	5082			
Water Colu	mn: 111 x .65 27,215	Grundfos	2" Pump	(141)			
Dedicated F	Pump in Well?: No	Grundfos	RediFlo 2	19344			
	quired (gal) (Water Column x factor x 3): 21.6	gel					
Total Volum	ne Removed (gal): ~75 5 1	,					

	Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
	0830	V20/231	riligon	19.75	12.87	3.45	226	0.53	133.0	3.82	Cleur
2591	0835	4	1	18.75	12.89	4.60	200	0.50	129.8	3.77	()
	0840			18.75	1287	5,28	195	0.58	94.0	3.11	l1
2 10 41	0842			18,75	12.91	9,65	182	0,68	19.3	211	11
	0850			18,76	12.92	5103		0.76	7.7	1,60	11
21558	0855			18,76	12.89	6.09	184	0.87	-0,6	1,24	14
	0900			18:76	12.93	6,25	191	1.02	-5.2	1,01	Le
2 2358	1905			18.74	12,97	6.19	195	1.07	-27	0.84	11
	0910		-1/	18.76	12.96	-	191	1.10	Q.7	0,80	et .
nysid.	0915	6	Ψ	18.74	12.94	6.18	193	1,23	1,3	0,74	1.1
Last her											
Wenter											
,	Aco	eptance Crite	nia:	<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

Acceptance Criteria: <0.3ft 2" Screen Volume = 0.163 gal/ft or 616 ml per foot

1 gal = 3.79 L

4" Screen Volume = 0.65 gal/ft = 2 46 L

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis Select VOCs	
0915	SV- 13 -06- 24 15	40 mL CG	3	HCI		
	,	1L AG	2	***	2-methylnaphthalene	
		-250 mL PL	1	HNO3	Lead	

Comments FRIJ Blank / Favement Blank -	FB-1-367415 collected Q
107 Hz gay b budger de	Similar Durb
11/1	6/24/15
Stgnature	Date

Low Flow/ Low Stress Groundwater Sampling Log

Project: Location:	NWIRP Calverton Site 7 Calverton, NY	Date:	06/24 /15	- 1/2			
Well ID:	sv- 15	PID (ppm)	1,	H&S			
Start Time:	0955 End Time: 1057	Field Testing Equipment					
Well Const	ruction: 2" FVC	Make	Model	Serial #			
Depth to W	ater:	YSI	556	096-100709			
	26.58	LaMotte	2020	5082			
Water Colu	mn: 12,2 V.16 = 7,013	Grundfos	2" Pump	(cel)			
Dedicated F	Pump in Well?: No	Grundfos	RediFlo 2	19344			
Volume Red	quired (gal) (Water Column x,factor x 3):	0 9.1					
Total Volum	ne Removed (gal): N 8 7 V	7-1					

	Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm ^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
	1000	11/191	ullygen	14.36	15.27	6.65	226	1.82	23.9	134	Clay
	1005			14.38	1518	6:27	188	2.36	49	9.57	Li
	1010			14,36	15.25	6,37	18-3	2,46	-65	8113	11
	1015			14,38	15.19	6.37	187	2,53	-10.7	7.49	1,
	1020			14,38	15,17	6.37	181	2.43	-13,9	8,49	- U
	1325			14,38,	1512	6.37	180	2.48	-14.6	8112	t į
	1030	1	V	14,36	15,0	6,37	181	2.45	-15,1	7.82	ts
N											

Acceptance Criteria:

<0.3ft

3%

± 10mv

10%

10% 1 gal = 3.79 L

4" Screen Volume = 0 65 gal/ft = 2.46 L

Sample Collection

±0.1

Time	Sample ID	Container	# Bottles	Preservative	Analysis	
1030	sv- 15 -06- 24 15	40 mL CG	3	HCI	Select VOCs	
		1L AG	2	_	2-methylnaphthalene	
		250 mL PL	1	HNO3	Lead	

Comments

211 z

book freels

^{2&}quot; Screen Volume = 0.163 gal/ft or 616 ml per foot

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Calverton Site 7 Location: Calverton, NY Well ID: SV- MW-165	Date: Sampler: PID (ppm)	06/24 /15 SF, RH	H&S
Start Time: 1305 End Time: 1335		Field Testing Equipme	<u>nt</u>
Well Construction: 211 PVC	Make	Model	Serial #
Depth to Water: 25.66	YSI	556	14730
Well Depth: 18, 39	LaMotte	2020	SOKZ
Water Column: 7, 32 x, 14 x 1. 4 x 3	Grundfos	2" Pump	(ofmy)
Dedicated Pump in Well?: No	Grundfos	RediFlo 2	19344
Volume Required (gal) (Water Column x factor x 3): $\frac{\sqrt{3}}{\sqrt{3}}$. Total Volume Removed (gal): $\frac{\sqrt{8}}{\sqrt{9}}$	91		

121/2

271/2

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (μS/cm ^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1310 1315 1320 1325 1330 1335	~1'14 g.d.	Mygpm	18.42 18.40 18.40 18.40	14.86 14.73 14.79 14.79 14.76 14.74	6.51 6.50 6.50 6.51	331 325 325 327 325 326	0.32	-67.8 -70.4 -69.4 -69.9 -70.3 -73.4	7.66	Clear
	reptance Crite		<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

1 gal = 3.79 L

4" Screen Volume = 0.65 gal/ft = 2.46 L

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1335	-06- 2Y 15	40 mL CG	3	HCI	Select VOCs
	MW-165 1	1L AG	2		2-methylnaphthalene
1	V	250 mL PL	1	HNO3	Lead

Comments

Signature

^{2&}quot; Screen Volume = 0.163 gal/ft or 616 ml per foot

Low Flow/ Low Stress Groundwater Sampling Log

	Project: Location: Well ID:	Location: Calverton, NY				Date: Sampler: PID (ppm)	06/24			_1//	H&S
	Start Time:	1347 E	End Time: _}	127			Fie	ld Testi	ng Equip	ment	
	Well Constr	ruction:	2" PVC		_	Make		Model			ial#
	Depth to Wa	1000	6			YSI		556	<u> </u>	147	30
	Well Depth:		ιΔ . <i>I</i>			LaMotte		2020		50	82
				21,2×3		Grundfos	2" Pump			(ral)	
	Dedicated F				9	Grundfos	RediFlo 2			19344	
				n x factor x 3):	3,6	9-1					
	Total Volum	e Removed	(gal):								
	Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
	1352	11/45	2/4 year	17,71	14,260	6.10	788	8.43	-31,6	6.80	Clear
azilz	1357	1	, , , , , ,	17,70	14.13	6,05	783	0.44	-37.7	10.23	L.
	1802			17,71	14.17	6,08	780	0,37	-41,7	7.08	
15	1407			17.7	14.63	(0,05	278	0,34	-40,5	696	1.
0)	1412			17.70	14,71	6.08	278	0,39	-43.5	7.11	1.
271/2	1467			12.30	14,46	6,07	280	0,32	-46.3	7.15	1,
	1422		1/	17,70	1750	80,0	276	0.34	-48,5	7,07	ı,
210	1427	0	V	17.77	14.64	6.07	277	0.35	-57,2	7.05	٠,
/											
•	Acc	eptance Crite	eria:	<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	
	2" Screen Vo	lume = 0.163	gal/ft or 616	ml per foot			1 gal = 3.79	L			
	4" Screen Vo	lume = 0 65	gal/ft = 2.46 L								
					Sampl	e Collec	tion				
	Time	Sample ID		Container		# Bottles		Preservati	ve	Analysis	
	1427	sv06	- 24 15	40 mL CG		3		HCI		Select VOC	3
	11	MM-175		1L AG		2		•••		2-methylnap	hthalene
	V	V		250 mL PL		1		HNO3		Lead	
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Instrument Calibration Log

Project/Site Name:	NWIRP	Calverton	Site 7

Date: 06/24 /15

Weather: Wear, sung NASE

Calibrated By:

Instrument: YSI 556

Serial Number: 096/00709

Parameters	Morning Calibration Time: 0分分	Cal. Temperature °C	Afternoon Cal. Check	Comments
Conductivity 1413 (µS/cm ^c)	1308/1413	27.40	1394	
pH (7)	7,09/7,00	28.02	7.05	
pH (4)	4,03/4100	26.85	4.09	
pH (10)	10,03/10,00	27.76	10,07	
ORP 240 (mv)	2334/240,0	27.93	242.4	
Dissolved Oxygen (%)	105,8% /1080%	25,49	99.370	
Zero Dissolved Oxygen (mg/L)				
Barometric Pressure (mmHg)	760			

pH Check (Every 3 hrs): Time:

NA

Time: Standard:

NA

Time:

Standard:

NA

(NJ only)

Standard: Reading:

Reading:

Reading:

Signature:



Project/Site Name:	NWIRP Calverton Site 7	Calibrated By:
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Instrument/Serial Number	Pre-Cal 1-AM (NTU)	Pre-Cal 1-PM (NTU)	Pre-Cal 10-AM (NTU)	Pre-Cal 10-PM (NTU)	Post-Cal 1-AM (NTU)	Post-Cal 1-PM (NTU)	Post-Cal 10-AM (NTU)	Post-Cal 10-PM (NTU)	Da	ite
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Date:	24/15
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Email? X -Y igood@hsenv.com							1		Select VOCs (8260) - BTEX,Naphthalene, Freon	2-methylnaphthalene (8270)	_ead (6010)			4 & S Envir	ite 7		 	1 5015	Correct containers?	rample volume?	Correct preservation?	appropriate Y
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APPENDIX B

DATA VALIDATION REPORTS AND VALIDATED DATA SUMMARY

VOLATILE ORGANIC COMPOUNDS

USEPA Region II -Data Validation

Project Name:

NWIRP Calverton, Site 7 Quarterly LTM

Location:

Calverton, New York

Project Number:

2032-403

SDG #:

R1505081

Client:

H&S Environmental, Inc.

Date:

08/27/2015

Laboratory:

ALS Environmental, Rochester, NY

Reviewer:

Sherri Pullar

Summary:

- 1. Data validation was performed on the data for eight (8) water samples, one (1) field blank and one (1) trip blank analyzed for Volatiles by SW846 Method 8260C.
- 2. The samples were collected on 06/24/2015. The samples were submitted to ALS Environmental, Rochester, NY on 06/24/2015 for analysis.
- 3. The USEPA Region II SOP HW-24, Revision No.: 2, August 2008: Validating Volatile Organic Compounds by SW-846 Method 8260B was used in evaluating the Volatiles data in this summary report.
- 4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).



Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Collection Date	Analysis	Matrix	Sample Status
SV-2-062415	R1505081-001	06/24/15	VOA	Water	
SV-4-062415	R1505081-002	06/24/15	VOA	Water	
SV-11-062415	R1505081-003	06/24/15	VOA	Water	
SV-13-062415	R1505081-004	06/24/15	VOA	Water	
SV-15-062415	R1505081-005	06/24/15	VOA	Water	
MW-16S-062415	R1505081-006	06/24/15	VOA	Water	
MW-17S-062415	R1505081-007	06/24/15	VOA	Water	
DUP-1-062415	R1505081-008	06/24/15	VOA	Water	Field Duplicate of sample SV-4- 062415
FB-1-062415	R1505081-009	06/24/15	VOA	Water	Field Blank
TB-1-062415	R1505081-010	06/24/15	VOA	Water	Trip Blank

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

- 1. All water samples were analyzed within 14 days from sample collection. No qualifications were required.
- 2. All water samples were properly preserved (pH<2.0). No qualifications were required.

GC/MS Tuning:

1. All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration:

1. Initial calibration curve analyzed on 06/04/2015 (R-MS-12) exhibited acceptable %RSDs and average RRF values for all compounds. No qualifications were required.



Initial Calibration Verification (ICV):

1. ICV analyzed on 06/05/2015 (R-MS-12) exhibited acceptable %Ds (≤30.0%) for CCC compounds and RRF values for SPCC compounds. %Ds for all other compounds were ≤30.0%. No qualifications were required.

Continuing Calibration Verification (CCV):

1. CCV analyzed on 07/01/2015 (R-MS-12) exhibited acceptable %Ds (≤20.0%) for CCC compounds and RRF values for SPCC compounds. %Ds for all other compounds were ≤20.0%. No qualifications were required.

Surrogates:

1. All surrogates %RECs values for all water samples and associated QC were within the laboratory. No qualifications were required.

Internal Standard (IS) Area Performance:

1. All samples exhibited acceptable area count for all four internal standards. No qualifications were required.

Method Blank (MB), Storage Blank (SB), Trip Blank (TB), Field Blank (FB), Rinsate Blank (RB) and Equipment Blank (EB):

1. Method Blank (RQ1507299-04) analyzed on 07/01/2015.

Blank ID	Compound	Results (µg/L)	Action Level (LOQ)* (μg/L)	Sample Affected	Action
RQ1507299-04	Naphthalene	0.33	5.0	SV-2, SV-4, SV-13, MW-16S MW-17S, Dup-1, TB-1	None None
				SV-11, FB-1, SV-15	U

2. Field Blank (FB-1-062415) (R1505081-009) associated with this SDG was analyzed on 07/01/2015. Field blank FB-1-062415 contained naphthalene at a concentration of 0.33 μg/L, however this result was qualified as non-detect (U) due to method blank contamination. No further qualifications were required.



3. Trip Blank (TB-1-062415) (R1505081-010) associated with this SDG analyzed on 07/01/2015 was free of contamination. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. Laboratory Control Sample (RQ1507299-03) was analyzed on 07/01/2015. All %RECs were within the laboratory control limits. No qualifications were required.

Field Duplicate:

1. Sample DUP-1-062415 (R1505081-008) was collected as field duplicate for sample SV-4-062415 (R1505081-002). RPDs were within the control limits (<30%). No qualifications were required.

Field Sample	Compound	Analytical Method	Result	Units	Field Duplicate	Result	Units	RPD	Qualifier
SV-4-062415	Ethylbenzene	SW846 8260C	8.7	μg/l	DUP-1-062415	8.8	μg/l	1.1	None
SV-4-062415	m,p-xylene	SW846 8260C	30	μg/l	DUP-1-062415	30	μg/l	0	None
SV-4-062415	Naphthalene	SW846 8260C	9.3	μg/l	DUP-1-062415	11	μg/l	16.7	None
SV-4-062415	o-xylene	SW846 8260C	13	μg/l	DUP-1-062415	13	μg/l	0	None
SV-4-062415	Freon 113	SW846 8260C	1.6	μg/l	DUP-1-062415	1.4	μg/l	13.3	None

Matrix Spike (MS)/ Matrix Spike Duplicate (MSD):

1. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were performed on sample SV-4-062415 (R1505081-002). All %RECs and RPDs were within the laboratory control limits. No qualifications were required.

Compound Quantitation and Reported Contract Required Quantitation Limits (CRQLs):

1. All results were within the linear calibration range. No qualifications were required.

Target Compound Identification:

1. All Relative Retention Times (RRTs) of the reported compounds were within ± 0.06 RRT units of the standard (opening CCV).



- 2. Sample compound spectra were compared against the laboratory standard spectra.
- 3. No QC deviations were observed.

Comments:

1. Validation qualifiers (if required) were entered into the EDD for SDG: R1505081.



SEMI-VOLATILE ORGANIC COMPOUNDS

USEPA Region II -Data Validation

Project Name:

NWIRP Calverton, Site 7 Quarterly LTM

Location:

Calverton, New York

Project Number:

2032-403

SDG #:

R1505801

Client:

H&S Environmental, Inc.

Date:

08/27/2015

Laboratory:

ALS Environmental, Rochester, NY

Reviewer:

Sherri Pullar

Summary:

- 1. Data validation was performed on the data for eight (8) water samples and one (1) field blank analyzed for Semi-volatiles by SW-846 Method 8270D.
- 2. The samples were collected on 06/24/2015. The samples were submitted to ALS Environmental, Rochester, NY on 06/24/2015 for analysis.
- 3. The USEPA Region-II SOP HW-22, Revision 3, August 2008, Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8270D was used in evaluating the Semi-volatiles data in this summary report.
- 4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (see discussion below).



Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory	Collection	Analysis	Matrix	Sample Status
	Sample ID	Date			
SV-2-062415	R1505081-001	06/24/15	SVO	Aqueous	
SV-4-062415	R1505081-002	06/24/15	SVO	Aqueous	
SV-11-062415	R1505081-003	06/24/15	SVO	Aqueous	
SV-13-062415	R1505081-004	06/24/15	SVO	Aqueous	
SV-15-062415	R1505081-005	06/24/15	SVO	Aqueous	
MW-16S-062415	R1505081-006	06/24/15	SVO	Aqueous	
MW-17S-062415	R1505081-007	06/24/15	SVO	Aqueous	
DUP-1-062415	R1505081-008	06/24/15	SVO	Aqueous	Field Duplicate of sample SV-4-
					062415
FB-1-062415	R1505081-009	06/24/15	SVO	Aqueous	Field Blank

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All aqueous samples were extracted within 7 days from sample collection and analyzed within 40 days following sample extraction. No qualifications were required.

GC/MS Tuning:

1. All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration:

1. Initial calibration curve analyzed on 06/29/2015 (R-MS-54) exhibited acceptable %RSDs (≤30.0%) for CCC compounds and average RRF values for SPCC compounds. Also %RSDs for all other compounds were ≤20.0% and average RRF (>0.050). No qualifications were required.



Continuing Calibration Verification (CCV):

1. CCV analyzed on 06/30/2015 @ 11:48 (R-MS-54) exhibited acceptable %Ds (≤20.0%) for CCC compounds and RRF values for SPCC compounds. Also, %Ds for all other compounds were ≤20.0%. No qualifications were required.

Surrogates:

1. All surrogate %REC values in the original extracts were within the QC acceptance limits. No qualifications were required.

Internal Standard (IS) Area Performance:

1. All samples exhibited acceptable area count for all six internal standards. No qualifications were required.

Method Blank (MB), Storage Blank (SB), Trip Blank (TB), Field Blank (FB), Rinsate Blank (RB) and Equipment Blank (EB):

- 1. Method Blank (RQ1507089-01) associated with the aqueous samples extracted on 06/29/2015 and analyzed on 06/29/2015 was free of contaminations. No qualifications were required.
- 2. Field Blank (FB-1-062415) (R1505081-009) associated with this SDG was analyzed on 06/30/2015 was free of contaminations. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. Laboratory Control Sample/Laboratory Control Sample Duplicate (RQ1507089-02/03) were analyzed on 06/29/2015. All %RECs and RPDs were within the laboratory control limits. No qualifications were required.

Field Duplicate:

1. Sample DUP-1-062415 (R1505081-008) was collected as field duplicate for sample SV-4-062415 (R1505081-002). RPDs were within the control limits (<30%). No qualifications were required.

Field Sample	Analytic Compound Method		Result	Units	Field Duplicate	Result	Units	RPD	Qualifier
SV-4-062415	2-Methylnaphthalene	SW846 8270D	7.7	μg/l	DUP-1-062415	7.5	μg/l	2.6	None



Matrix Spike (MS)/Matrix Spike Duplicate (MSD):

1. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were performed on sample SV-4-062415 (R1505081-002). All %RECs and RPDs were within the laboratory control limits. No qualifications were required.

Target Compound Identification:

- 1. All Relative Retention Times (RRTs) of the reported compounds were within ± 0.06 RRT units of the standard (opening CCV).
- 2. Sample compound spectra were compared against the laboratory standard spectra.
- 3. No QC deviations were observed.

Compound Quantitation and Reported Detection Limits:

1. All sample results were reported within the linear calibration range.

Comments:

1. Validation qualifiers (if required) were entered into the EDD for SDG: R1505081.



LEADUSEPA Region II –Data Validation

Project Name: NWIRP Calverton, Site 7 Quarterly LTM

Location: Calverton, New York

Project Number: 2032-403

SDG #: R1505081

Client: H&S Environmental, Inc.

Date: 08/27/2015

Laboratory: ALS Environmental, Rochester, NY

Reviewer: Sherri Pullar

Summary:

- 1. Data validation was performed on the data for eight (8) water samples and one (1) field blank analyzed for the following analysis:
 - 1.1 Trace Metals-ICP by SW-846 Method 6010C.
- 2. The samples were collected on 06/24/2015. The samples were submitted to ALS Environmental, Rochester, NY on 06/24/2015 for analysis.
- 3. The USEPA Region-II SOP No. HW-2, Revision 13, September 2006, Validation of Metals for Contract Laboratory Program (CLP), based on SOW-ILM05.3 (SOP Revision 13) was used in evaluating the Trace Metals data in this summary report.
- 4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).

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H&S Environmental, Inc. SDG #: R1505081



Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Collection Date	Analysis	Matrix	Sample Status
SV-2-062415	R1505081-001	06/24/15	ICP	Aqueous	
SV-4-062415	R1505081-002	06/24/15	ICP	Aqueous	
SV-11-062415	R1505081-003	06/24/15	ICP	Aqueous	
SV-13-062415	R1505081-004	06/24/15	ICP	Aqueous	
SV-15-062415	R1505081-005	06/24/15	ICP	Aqueous	
MW-16S-062415	R1505081-006	06/24/15	ICP	Aqueous	
MW-17S-062415	R1505081-007	06/24/15	ICP	Aqueous	
DUP-1-062415	R1505081-008	06/24/15	ICP	Aqueous	Field Duplicate of sample SV-4-062415
FB-1-062415	R1505081-009	06/24/15	ICP	Aqueous	Field Blank

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All water samples were analyzed within the six (6) months holding time for lead analysis by ICP-MS. No qualifications were required.

Initial and Continuing Calibration Verification (ICV and CCV):

1. All %RECs in the ICV and CCVs were within QC limits (90-110%). No qualifications were required.



CRQL Check Standard (CRI):

1. All CRI %RECs were within the control limits (70-130%). No qualifications were required.

ICP Interference Check Sample:

1. All %REC values were within the QC limits (80-120%) for ICSA and ICSAB. No qualifications were required.

Blanks (Method Blank, ICB and CCB):

- 1. All ICB and CCBs were free of contamination. No qualifications were required.
- 2. Method Blank (PBW) digested on 07/16/2015 was free of contamination. No qualifications were required.

Field Blank (FB) and Equipment Blank (EB):

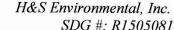
1. Field Blank (FB-1-062415) (R1505081-009) associated with this SDG was analyzed on 07/18/2015 was free of contamination. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. Laboratory Control Sample associated with Sample ID: LCSW (ICP) was digested on 07/16/2015. All %RECs were within the laboratory control limits. No qualifications were required.

Field Duplicate:

1. Sample DUP-1-062415 (R1505081-008) was collected as field duplicate for sample SV-4-062415 (R1505081-002). Results for lead were non-detect for both samples. No qualifications were required.



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// /// H&S

Matrix Spike (MS)/ Matrix Spike Duplicate (MSD):

1. Matrix Spike was performed on sample SV-4-062415 (R1505081-002). All %RECs were within the laboratory control limits. No qualifications were required.

Sample Duplicate:

1. Sample Duplicate was performed on sample SV-2-062415 (R1505081-001). Both results were non-detect. No qualifications were required.

ICP-AES Serial Dilution:

1. ICP serial dilution was performed on sample SV-2-062415 (R1505081-001). All results that are sufficiently high (concentration in the original sample is >50x the Method Detection Limits (MDL)), the serial dilution analysis (a 5x dilution) were within the acceptable limit (%D= ±10 %). No qualifications were required.

Compound Quantitation and Reported Detection Limits:

1. All sample results were reported within the linear calibration range.

Comments:

1. Validation qualifiers (if required) were entered into the EDD for SDG: R15005081.





NWIRP CAL, ERTON, NY JUNE 2015 DATA SUMMARY TABLE AQUEOUS

SDG:	D 1	50	ZN.	Q1
DDG:	KI	JU:	วบ	ŌΙ

Sample Name	Lab ID	METHOD	Dilution	Analysis Date	Analyte	Result	Unit	Qualifier	LOD	LOQ
SV-2-062415	R1505081-001	8260C	5	7/1/2015	Freon 113	5	UG L	U	5	25
SV-2-062415	R1505081-001	8260C	5	7/1/2015	Benzene	5	UG L	U	5	25
SV-2-062415	R1505081-001	8260C	5	7/1/2015	Ethylbenzene	210	UG L		5	25
SV-2-062415	R1505081-001	8260C	5	7/1/2015	Naphthalene	36	UG L		5	25
SV-2-062415	R1505081-001	8260C	5	7/1/2015	Toluene	1.4	UG L	J	5	25
SV-2-062415	R1505081-001	8260C	5	7/1/2015	m,p-Xylenes	1200	UG L		10	25
SV-2-062415	R1505081-001	8260C	5	7/1/2015	o-Xylene	82	UG L		5	25
SV-2-062415	R1505081-001	8270D	1	6/29/2015	2-Methylnaphthalene	56	UG L		5	9.4
SV-2-062415	R1505081-001	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	Freon 113	1.6	UG L	J	1	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	Ethylbenzene	8.7	UG L	39.5	1	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	Naphthalene	9.3	UG L		1	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	m,p-Xylenes	30	UG L		2	5
SV-4-062415	R1505081-002	8260C	1	7/1/2015	o-Xylene	13	UG L		1	5
SV-4-062415	R1505081-002	8270D	1	6/29/2015	2-Methylnaphthalene	7.7	UG L	J	5	9.4
SV-4-062415	R1505081-002	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	Freon 113	11	UG L		1	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	Ethylbenzene	0.2	UG L	J	1	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	Naphthalene	1.8	UG L	U	1	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	Toluene	0.27	UG L	J	1	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	m,p-Xylenes	0.61	UG L	J	2	5
SV-11-062415	R1505081-003	8260C	1	7/1/2015	o-Xylene	1.1	UG L	J	1	5
SV-11-062415	R1505081-003	8270D	1	6/30/2015	2-Methylnaphthalene	5	UG L	U	5	9.4
SV-11-062415	R1505081-003	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
SV-13-062415	R1505081-004	8260C	1	7/1/2015	Freon 113	1	UG L	U	1	5
SV-13-062415	R1505081-004	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5

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NWIRP CAL, ERTON, NY JUNE 2015 DATA SUMMARY TABLE AQUEOUS SDG: R1505081

Sample Name	Lab ID	METHOD	Dilution	Analysis Date	Analyte	Result	Unit	Qualifier	LOD	LOQ
SV-13-062415	R1505081-004	8260C	1	7/1/2015	Ethylbenzene	7.9	UG L		1	5
SV-13-062415	R1505081-004	8260C	1	7/1/2015	Naphthalene	6.6	UG L		1	5
SV-13-062415	R1505081-004	8260C	1	7/1/2015	Toluene	0.72	UG L	J	1	5
SV-13-062415	R1505081-004	8260C	1	7/1/2015	m,p-Xylenes	13	UG L		2	5
SV-13-062415	R1505081-004	8260C	1	7/1/2015	o-Xylene	4.9	UG L	J	1	5
SV-13-062415	R1505081-004	8270D	1	6/30/2015	2-Methylnaphthalene	5	UG L	U	5	9.4
SV-13-062415	R1505081-004	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	Freon 113	1	UG L	U	1	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	Ethylbenzene	1	UG L	U	1	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	Naphthalene	0.38	UG L	U	1	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	m,p-Xylenes	2	UG L	U	2	5
SV-15-062415	R1505081-005	8260C	1	7/1/2015	o-Xylene	1	UG L	U	1	5
SV-15-062415	R1505081-005	8270D	1	6/30/2015	2-Methylnaphthalene	5	UG L	U	5	9.4
SV-15-062415	R1505081-005	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	Freon 113	1	UG L	U	1	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	Ethylbenzene	14	UG L		1	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	Naphthalene	12	UG L		1	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	m,p-Xylenes	35	UG L		2	5
MW-16S-062415	R1505081-006	8260C	1	7/1/2015	o-Xylene	0.61	UG L	J	1	5
MW-16S-062415	R1505081-006	8270D	1	6/30/2015	2-Methylnaphthalene	9.1	UG L	J	5	9.4
MW-16S-062415	R1505081-006	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	Freon 113	0.83	UG L	J	1	5
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	Ethylbenzene	9.5	UG L		1	5
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	Naphthalene	38	UG_L		1	5

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NWIRP CAL, ERTON, NY JUNE 2015 DATA SUMMARY TABLE AQUEOUS

SDG: R1505081

Sample Name	Lab ID	METHOD	Dilution	Analysis Date	Analyte	Result	Unit	Qualifier	LOD	LOQ
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	m,p-Xylenes	30	UG L		2	5
MW-17S-062415	R1505081-007	8260C	1	7/1/2015	o-Xylene	0.46	UG L	J	1	5
MW-17S-062415	R1505081-007	8270D	1	6/30/2015	2-Methylnaphthalene	23	UG L		5	9.4
MW-17S-062415	R1505081-007	6010C	1	7/18/2015	Lead	2.8	UG L	J	2.5	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	Freon 113	1.4	UG L	J	1	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	Ethylbenzene	8.8	UG L		1	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	Naphthalene	11	UG L		1	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	m,p-Xylenes	30	UG L		2	5
DUP-1-062415	R1505081-008	8260C	1	7/1/2015	o-Xylene	13	UG L		1	5
DUP-1-062415	R1505081-008	8270D	1	6/30/2015	2-Methylnaphthalene	7.5	UG L	J	5	9.4
DUP-1-062415	R1505081-008	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	Freon 113	1	UG L	U	1	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	Ethylbenzene	1	UG L	U	1	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	Naphthalene	0.26	UG L	U	1	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	m,p-Xylenes	2	UG L	U	2	5
FB-1-062415	R1505081-009	8260C	1	7/1/2015	o-Xylene	1	UG L	U	1	5
FB-1-062415	R1505081-009	8270D	1	6/30/2015	2-Methylnaphthalene	5	UG L	U	5	9.4
FB-1-062415	R1505081-009	6010C	1	7/18/2015	Lead	2.5	UG L	U	2.5	5
TB-1-062415	R1505081-010	8260C	1	7/1/2015	Freon 113	1	UG L	U	1	5
TB-1-062415	R1505081-010	8260C	1	7/1/2015	Benzene	1	UG L	U	1	5
TB-1-062415	R1505081-010	8260C	1	7/1/2015	Ethylbenzene	1	UG L	U	1	5
TB-1-062415	R1505081-010	8260C	1	7/1/2015	Naphthalene	1	UG L	U	1	5
TB-1-062415	R1505081-010	8260C	1	7/1/2015	Toluene	1	UG L	U	1	5
TB-1-062415	R1505081-010	8260C	1	7/1/2015	m,p-Xylenes	2	UG L	U	2	5

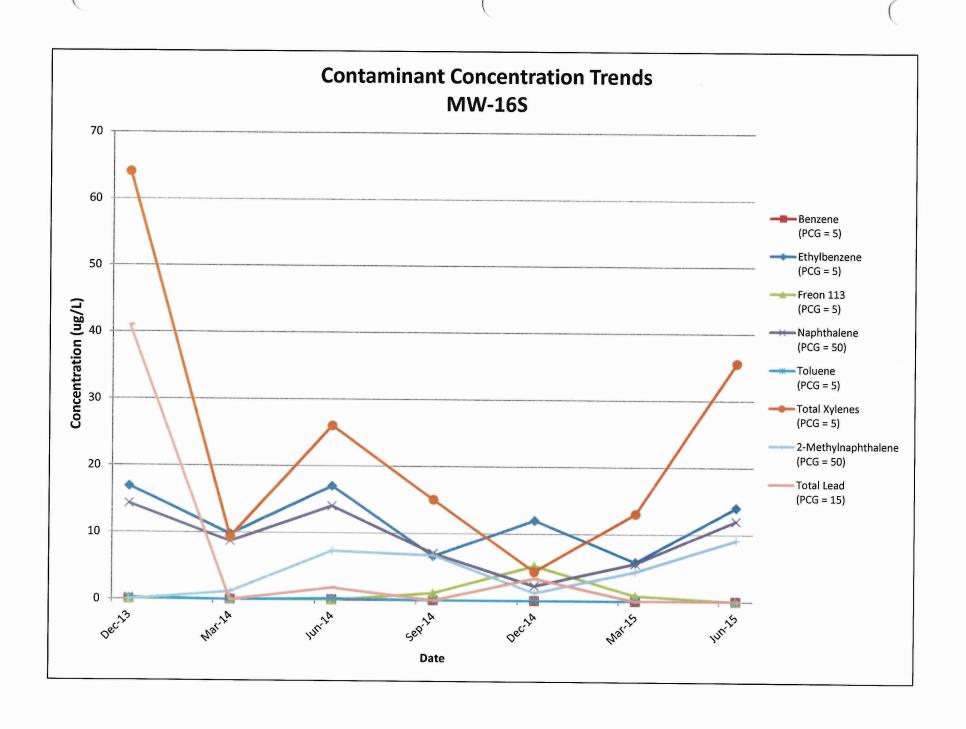


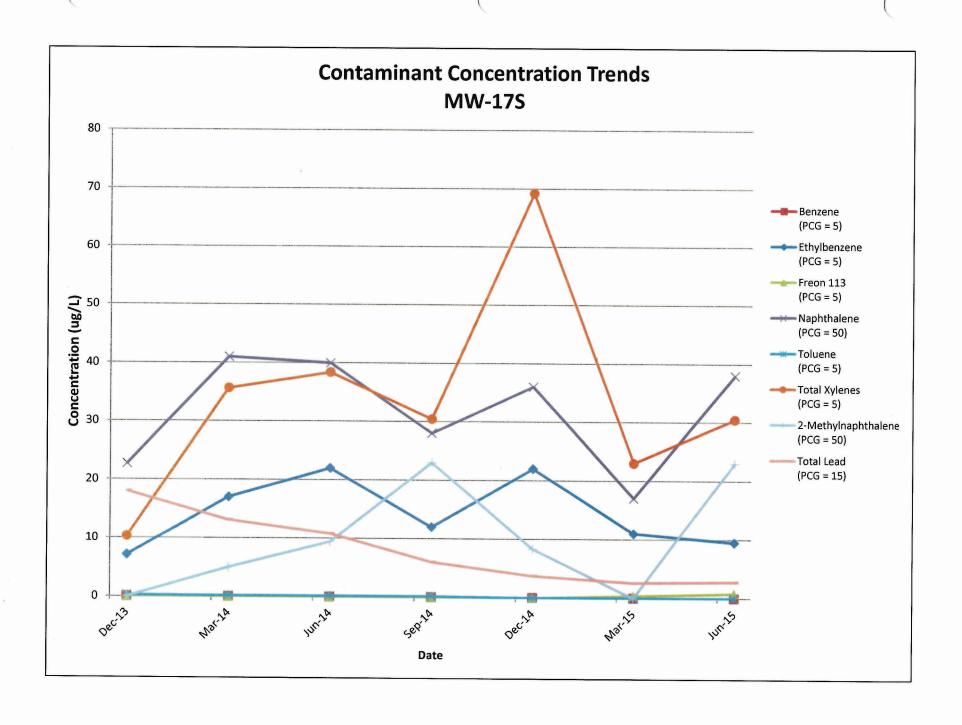
NWIRP CALVERTON, NY JUNE 2015 DATA SUMMARY TABLE AQUEOUS SDG: R1505081

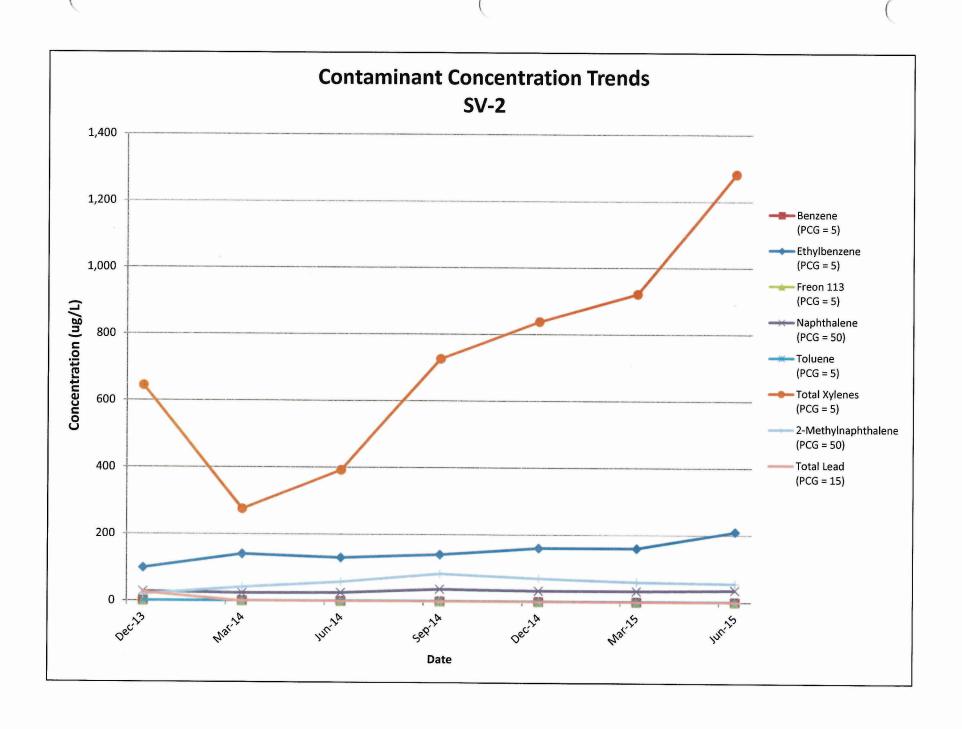
Sample Name	Lab ID	METHOD	Dilution	Analysis Date	Analyte	Result	Unit	Qualifier	LOD	LOQ
TB-1-062415	R1505081-010	8260C	1	7/1/2015	o-Xylene	1	UG_L	U	1	5

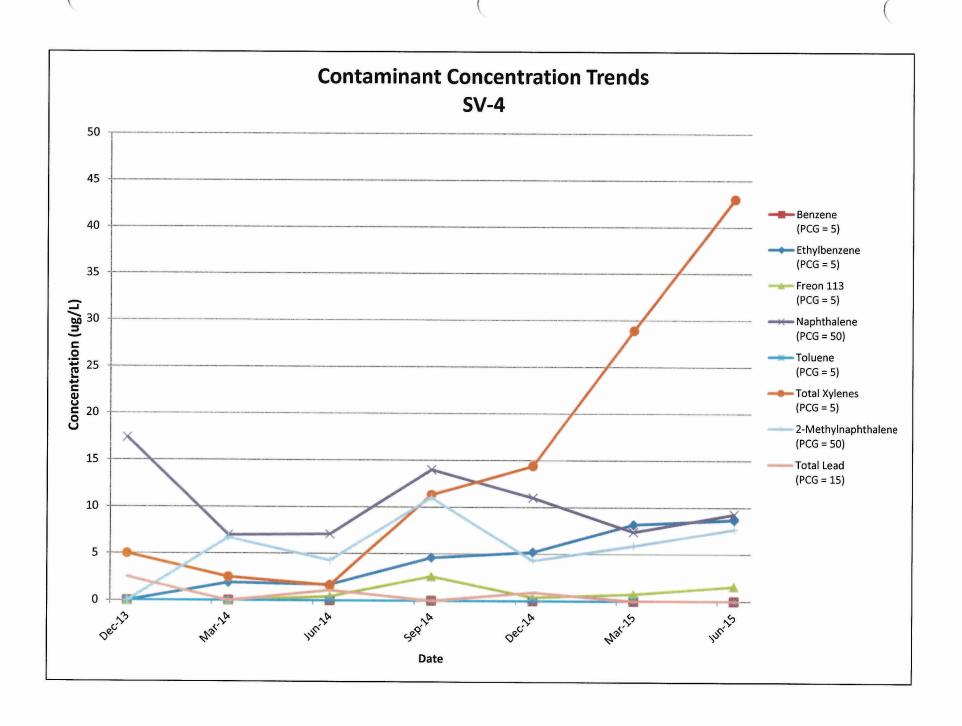
APPENDIX C

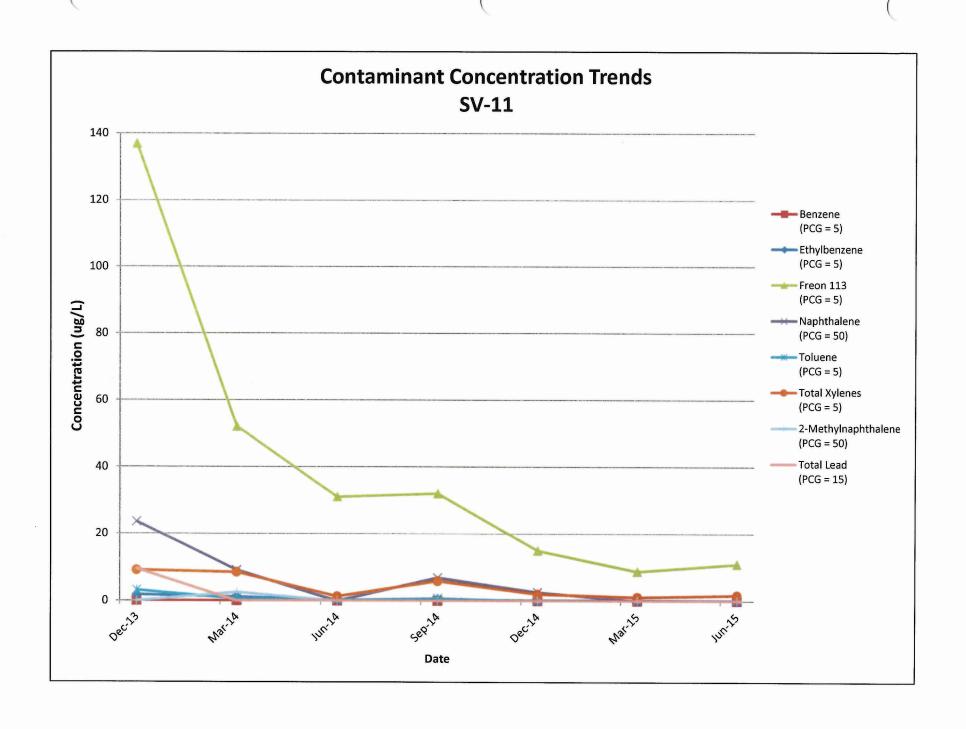
GROUNDWATER CONCENTRATION TRENDS (DECEMBER 2013 – JUNE 2015)

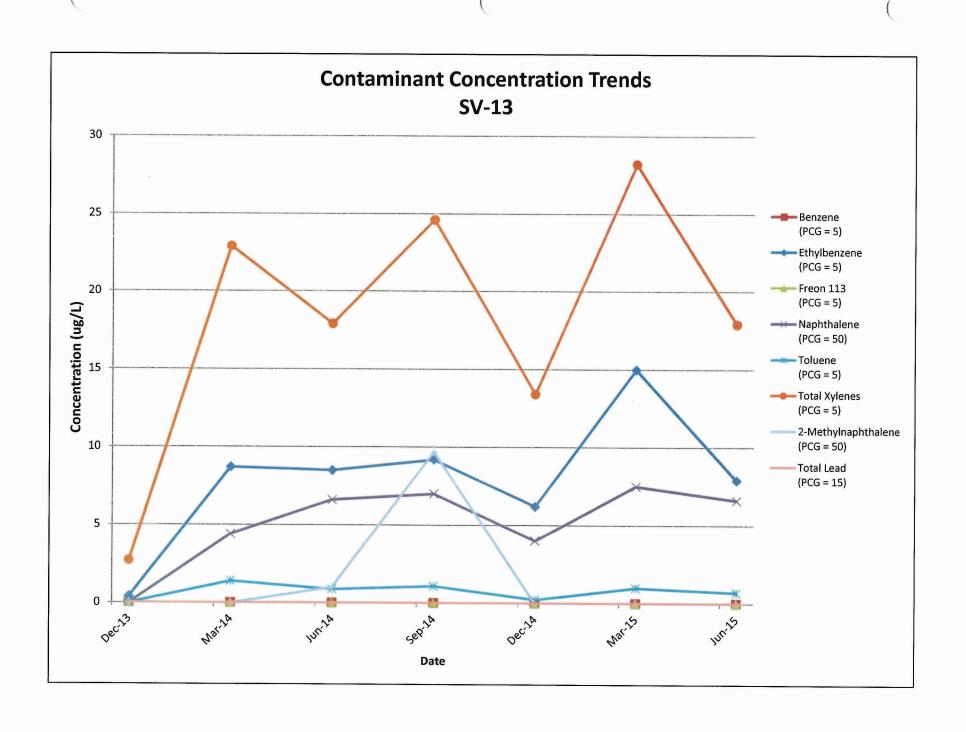


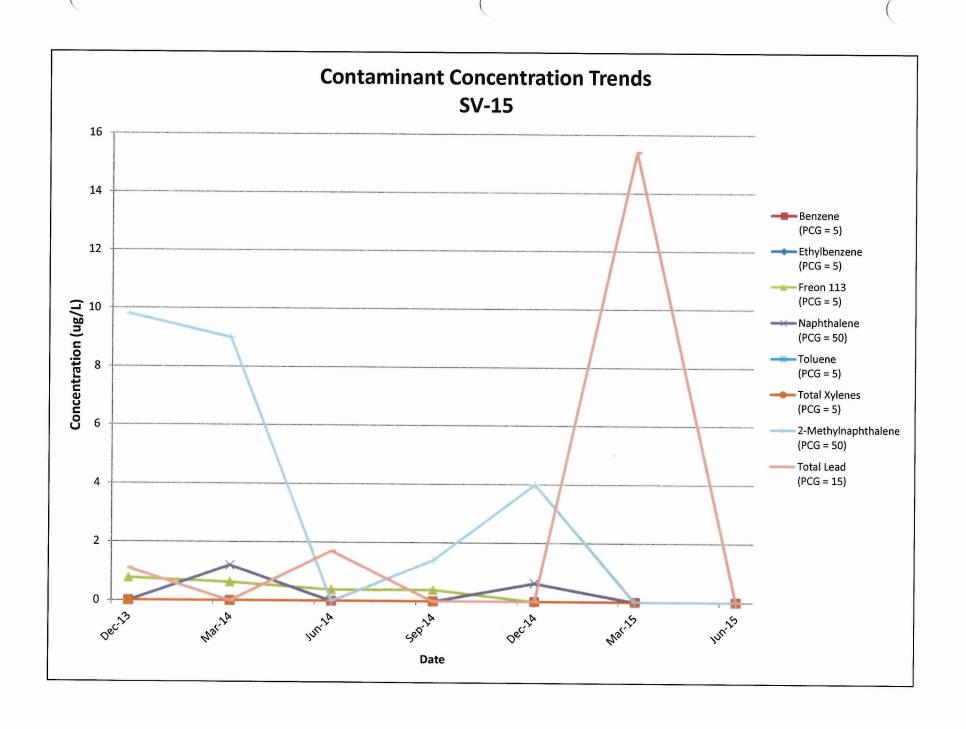












APPENDIX D

GROUNDWATER CONCENTRATION TRENDS (MARCH 2006 – JUNE 2015)

